CDX-GT40W/GT400/ GT450/GT450S

SERVICE MANUAL

Ver. 1.0 2005.10

US Model
CDX-GT40W/GT400
Canadian Model
CDX-GT400
E Model
CDX-GT450/GT450S

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS (US MODEL)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Model Name Using Similar Mechanism	CDX-GT30W/GT300/ GT350/GT350S
CD Drive Mechanism Type	MG-611WA-186//Q
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section
FM

Tuning range	87.5 – 107.9 MHz (US, CND model)
	87.5 – 108 MHz (at 50 kHz step) (E model)
	87.5 – 107.9 MHz (at 200 kHz step) (E model)
FM tuning interval	50 kHz/200 kHz switchable (E model)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	
	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz (US, CND model)
	531 – 1,602 kHz (at 9 kHz step) (E model)
	530 – 1,710 kHz (at 10 kHz step) (E model)
AM tuning interval	9 kHz/10 kHz switchable (E model)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	
	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (front/rear)
	Subwooofer output terminal (mono)
	Power antenna relay control terminal
	Power amplifier control terminal
Inputs	Telephone ATT control terminal
	Illumination control terminal
	BUS control input terminal
	BUS audio input terminal
	Remote controller input terminal
	Antenna input terminal
	AUX input jack (stereo mini jack)

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-879-890-01
2005J04-1
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Sony Corporation
e Vehicle Group
Published by Sony Engineering Corporation

SONY®

Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 181 mm (7 1/8 × 2 × 7 1/4 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 11 oz.)
Supplied accessories	Parts for installation and connections (1 set) Card remote commander: RM-X151

US and foreign patents licensed from Dolby Laboratories.

Note

This unit cannot be connected to a digital preamplifier or an equalizer which is Sony BUS system compatible.

Design and specifications are subject to change without notice.

- Abbreviation
  CND : Canadian model

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

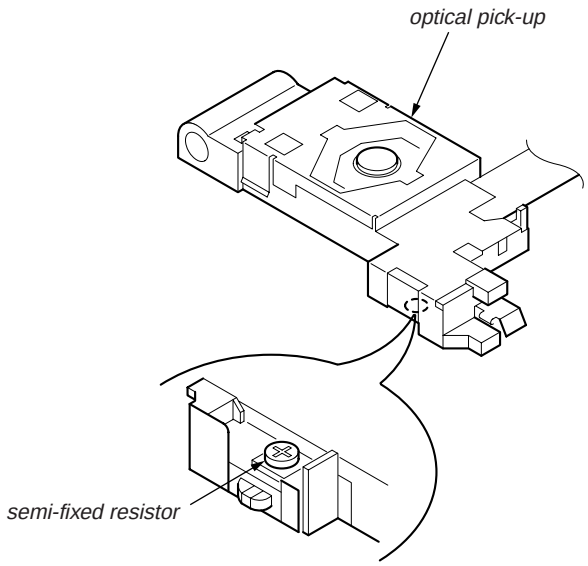
This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• E model

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

- CD Playback:
  You can play CD-DA (also containing CD TEXT*1), CD-R/CD-RW (MP3 WMA files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

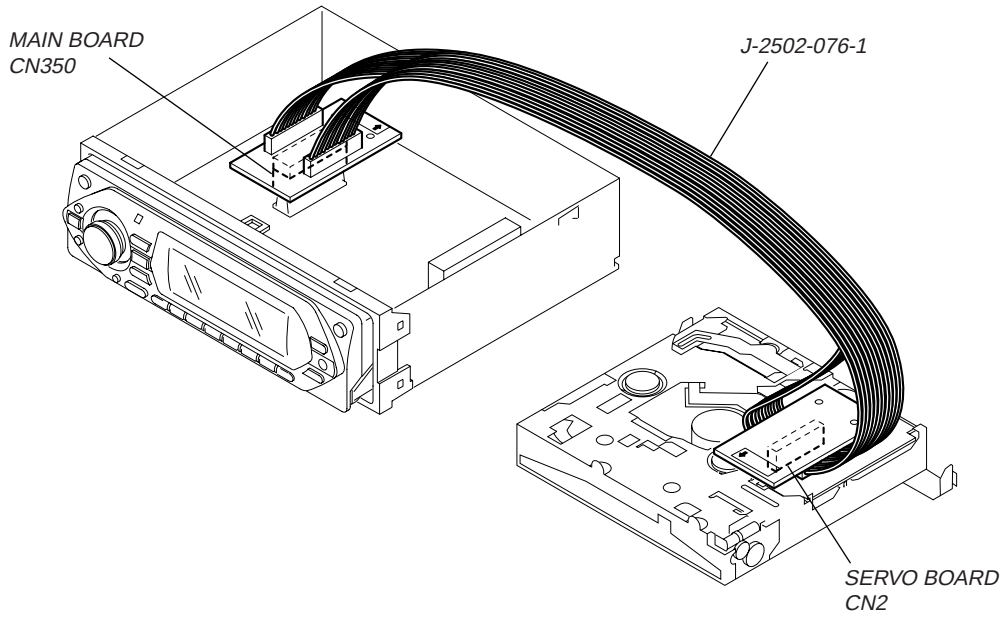
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 WMA ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CN350) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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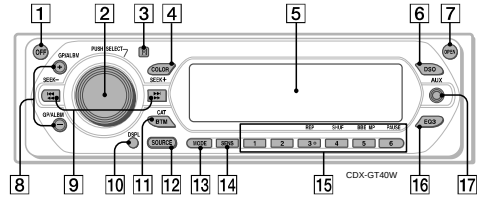
SECTION 1
GENERAL

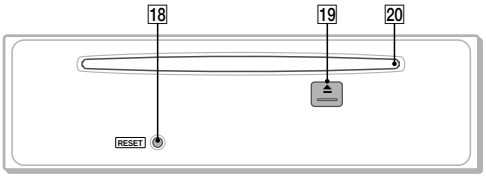
• LOCATION OF CONTROL (CDX-GT40W)

Location of controls and basic operations

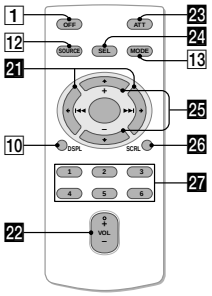
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** 9
To adjust volume (rotate); select setup items (press and rotate).

3 **Receptor for the card remote commander**

4 **COLOR button**
To select one of 7 color settings for the LCD.

5 **Display window**

6 **DSO button** 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

7 **OPEN button** 5

8 **GP*1/ALBM*2 +/– buttons*3**
To skip groups/albums (press); skip groups/albums continuously (press and hold).

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **DSPL (display) button** 8
To change display items.

11 **BTM/CAT*4 button** 8
To start the BTM function (press and hold).

12 **SOURCE button**
To power on; change the source (Radio/CD/MD*5/AUX/SAT*4).

13 **MODE button** 8, 10
To select the radio band (FM/AM)/select the SAT tuner band (mode)*4/select the unit*6.

14 **SENS button**
To improve weak reception: LOCAL/MONO.

15 **Number buttons**
CD/MD*5:
3: **REP** 8
4: **SHUF** 8
5: **BBE MP***7 3
To activate the BBE MP function, set "BBEMP-ON." To cancel, set "BBEMP-OFF."
6: **PAUSE***7
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **EQ3 (equalizer) button** 9
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

17 **AUX input jack** 10
To connect a portable audio device.

18 **RESET button** 4

19 **⏏ (eject) button** 5
To eject the disc.

20 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

21 **⬅ (I◀◀)/➡ (▶▶I) buttons**
To control CD/radio, the same as SEEK –/+ on the unit.

22 **VOL (volume) +/– button**
To adjust volume.

23 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

24 **SEL (select) button**
The same as the select button on the unit.

25 **⬆ (+)/⬇ (–) buttons**
To control CD, the same as GP/ALBM +/– on the unit.

26 **SCRL (scroll) button**
To scroll the display item.

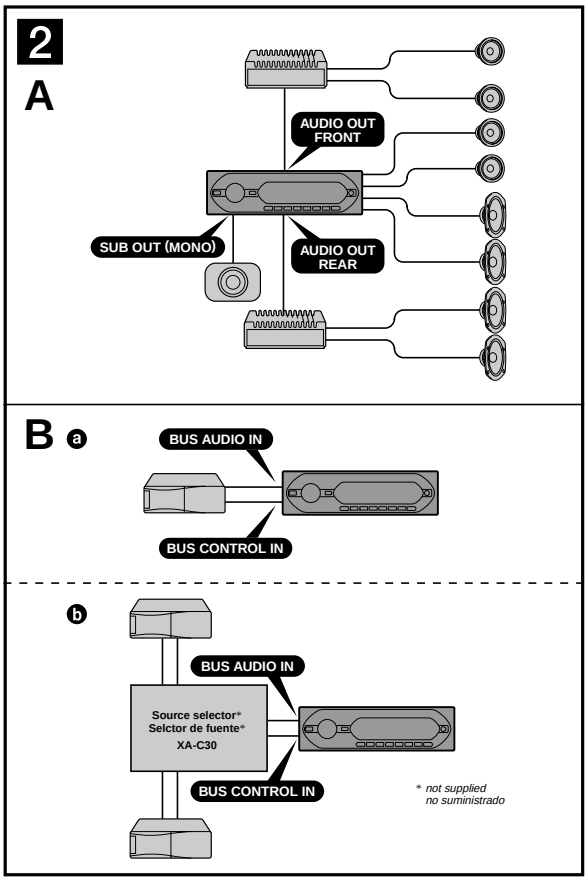
27 **Number buttons**
To receive stored stations (press); store stations (press and hold).

*1 *When an ATRAC CD is played.*
*2 *When an MP3/WMA is played.*
*3 *If the changer is connected, the operation is different, see page 10.*
*4 *When the SAT tuner is connected.*
*5 *When an MD changer is connected.*
*6 *When a CD/MD changer is connected.*
*7 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless SOURCE on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 13.

• CONNECTIONS (CDX-GT40W)



Connection example 2

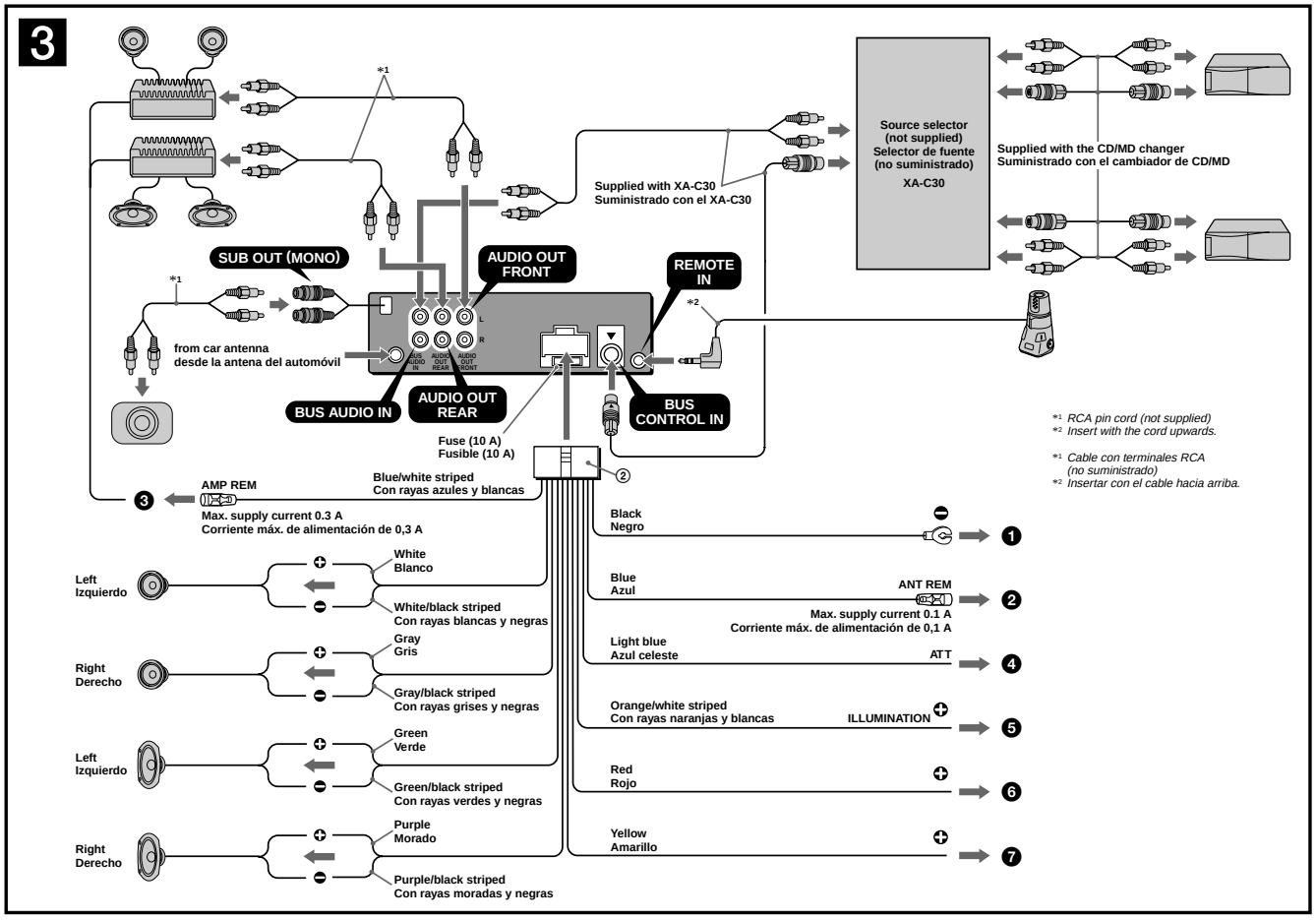
***Notes* (2-A)**
- *Be sure to connect the ground lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C30 (not supplied) is necessary.

Ejemplo de conexiones 2

***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.*
- *La alarma sonará únicamente si se utiliza el amplificador incorporado.*

***Sugerencia* (2-B-b)**
Si desea conectar dos o más cambiadres de CD/MD, necesitará el selector de fuente XA-C30 (no suministrado).



Connection diagram 3

❶ To a metal surface of the car
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ To the power antenna control lead or power supply lead of antenna booster amplifier
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ To the interface cable of a car telephone

❺ To a car's illumination signal
Be sure to connect the black ground lead to a metal surface of the car first.

❻ To the +12 V power terminal which is energized in the accessory position of the ignition key switch
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❼ To the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión 3

❶ A una superficie metálica del automóvil
Conecte primero el cable de conexión a masa negro, y después los cables con rayas naranjas y blancas, amarillo, y rojo de entrada de alimentación.

❷ Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ A AMP REMOTE IN de un amplificador de potencia opcional
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ Al cable de interfaz de un teléfono para automóvil

❺ A una señal de iluminación del automóvil
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

❻ Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ Al terminal de alimentación de +12 V que recibe energía sin interrupción
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.

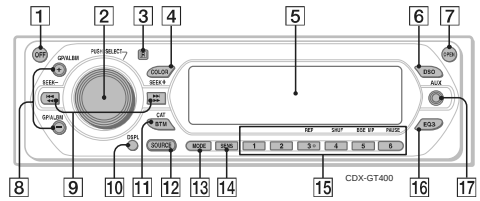
Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

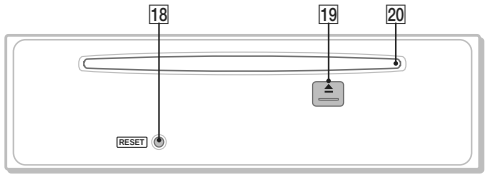
• LOCATION OF CONTROL (CDX-GT400)

Location of controls and basic operations

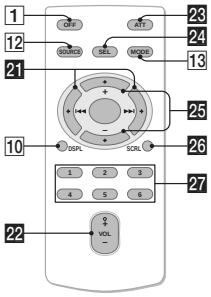
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** 9
To adjust volume (rotate); select setup items (press and rotate).

3 **Receptor for the card remote commander**

4 **COLOR button**
To select one of 7 color settings for the LCD.

5 **Display window**

6 **DSO button** 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

7 **OPEN button** 5

8 **GP*1/ALBM*2 +/– buttons*3**
To skip groups/albums (press); skip groups/albums continuously (press and hold).

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **DSPL (display) button** 8
To change display items.

11 **BTM/CAT*4 button** 8
To start the BTM function (press and hold).

12 **SOURCE button**
To power on; change the source (Radio/CD/MD*5/AUX/SAT*4).

13 **MODE button** 8, 10
To select the radio band (FM/AM)/select the SAT tuner band (mode)*4/select the unit*6.

14 **SENS button**
To improve weak reception: LOCAL/MONO.

15 **Number buttons**
CD/MD*5:
③: **REP** 8
④: **SHUF** 8
⑤: **BBE MP***7 3
To activate the BBE MP function, set "BBEMP-ON." To cancel, set "BBEMP-OFF."
⑥: **PAUSE***7
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **EQ3 (equalizer) button** 9
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

17 **AUX input jack** 10
To connect a portable audio device.

18 **RESET button** 4

19 **⏏ (eject) button** 5
To eject the disc.

20 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

21 **← (I◄◄)/→ (►►I) buttons**
To control CD/radio, the same as (SEEK) –/+ on the unit.

22 **VOL (volume) +/– button**
To adjust volume.

23 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

24 **SEL (select) button**
The same as the select button on the unit.

25 **↑ (+)/↓ (–) buttons**
To control CD, the same as (GP/ALBM) +/– on the unit.

26 **SCRL (scroll) button**
To scroll the display item.

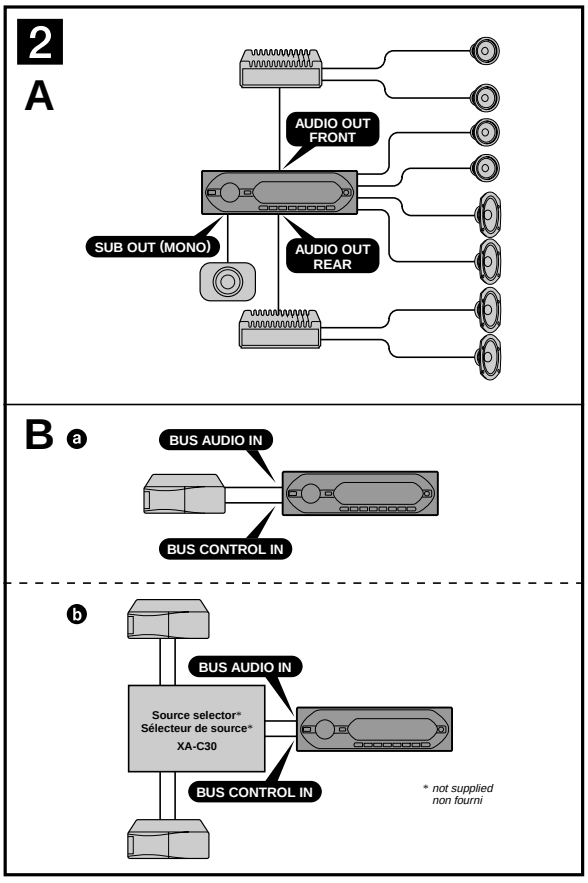
27 **Number buttons**
To receive stored stations (press); store stations (press and hold).

*1 *When an ATRAC CD is played.*
*2 *When an MP3/WMA is played.*
*3 *If the changer is connected, the operation is different, see page 10.*
*4 *When the SAT tuner is connected.*
*5 *When an MD changer is connected.*
*6 *When a CD/MD changer is connected.*
*7 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 13.

• CONNECTIONS (CDX-GT400)



Connection example 2

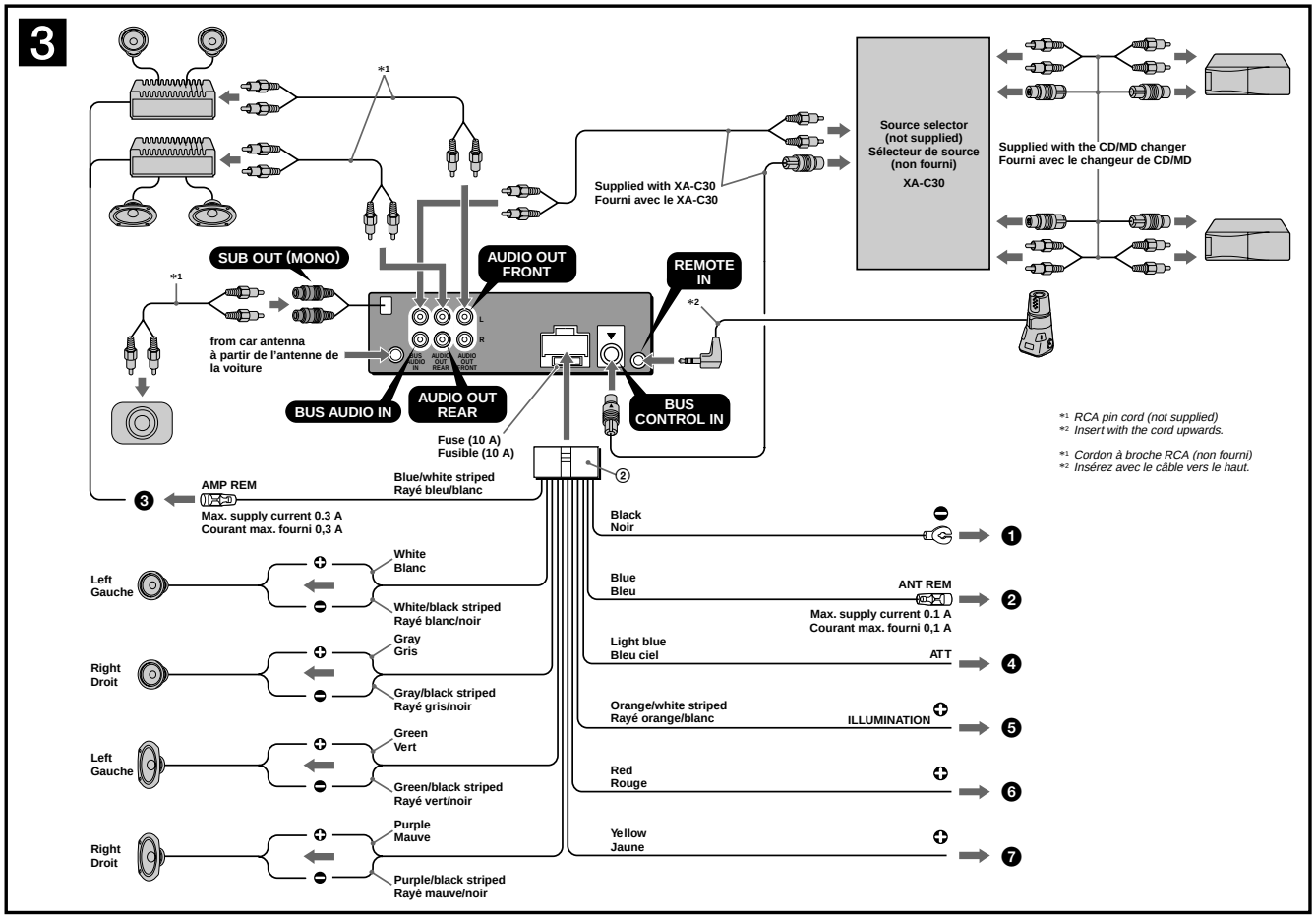
***Notes* (2-A)**
- *Be sure to connect the ground lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-ⓑ)**
For connecting two or more CD/MD changers, the source selector XA-C30 (not supplied) is necessary.

Exemple de raccordement 2

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

***Conseil* (2-B-ⓑ)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (non fourni) est requis.



Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement 3

❶ **À un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation rayé orange/blanc, jaune, et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le cordon de liaison d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

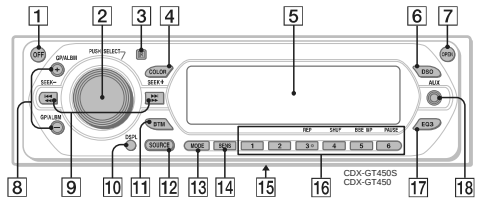
Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

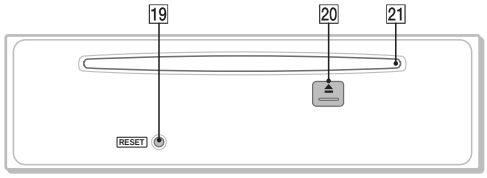
• LOCATION OF CONTROL (CDX-GT450/GT450S)

Location of controls and basic operations

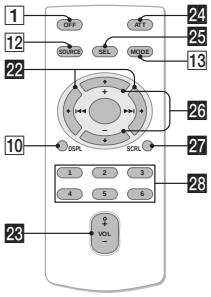
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** 9
To adjust volume (rotate); select setup items (press and rotate).

3 **Receptor for the card remote commander**

4 **COLOR button**
To select one of 7 colour settings for the LCD.

5 **Display window**

6 **DSO button** 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

7 **OPEN button** 5

8 **GP*1/ALBM*2 +/– buttons*3**
To skip groups/albums (press); skip groups/albums continuously (press and hold).

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **DSPL (display) button** 8
To change display items.

11 **BTM button** 8
To start the BTM function (press and hold).

12 **SOURCE button**
To power on; change the source (Radio/CD/MD*4/AUX).

13 **MODE button** 8, 10
To select the radio band (FM/AM)/select the unit*5.

14 **SENS button**
To improve weak reception: LOCAL/MONO.

15 **Frequency select switch** (located on the bottom of the unit)
See "Frequency Select switch" in the supplied installation/connections manual.

16 **Number buttons**
CD/MD*4:
③: **REP** 8
④: **SHUF** 8
⑤: **BBE MP***6 2
To activate the BBE MP function, set "BBEMP-ON." To cancel, set "BBEMP-OFF."
⑥: **PAUSE***6
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

17 **EQ3 (equalizer) button** 9
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

18 **AUX input jack** 10
To connect a portable audio device.

19 **RESET button** 4

20 **⏏ (eject) button** 5
To eject the disc.

21 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

22 **⏮ (I◀◀)/⏭ (▶▶I) buttons**
To control CD/radio, the same as (SEEK) –/+ on the unit.

23 **VOL (volume) +/– button**
To adjust volume.

24 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

25 **SEL (select) button**
The same as the select button on the unit.

26 **⏫ (+)/⏬ (–) buttons**
To control CD, the same as (GP/ALBM) +/– on the unit.

27 **SCRL (scroll) button**
To scroll the display item.

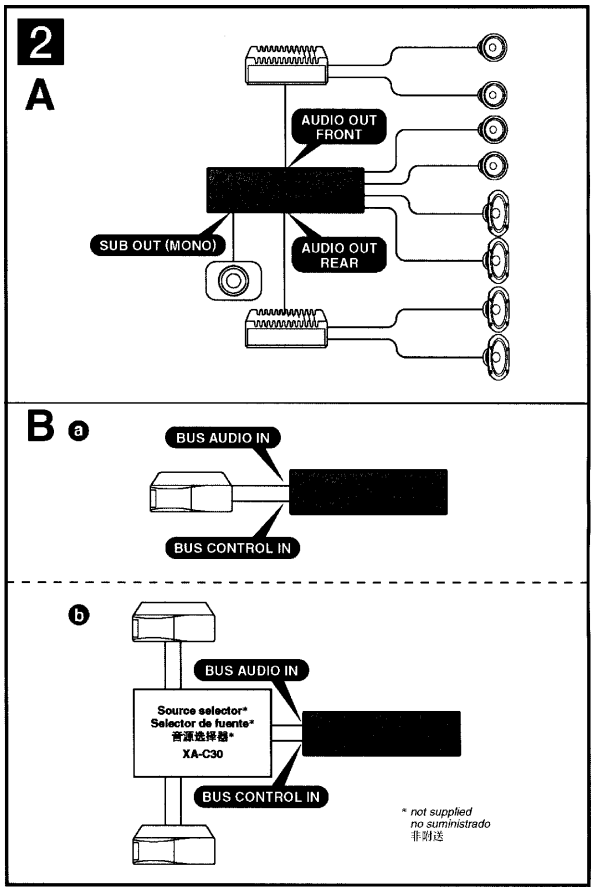
28 **Number buttons**
To receive stored stations (press); store stations (press and hold).

*1 *When an ATRAC CD is played.*
*2 *When an MP3/WMA is played.*
*3 *If the changer is connected, the operation is different, see page 10.*
*4 *When an MD changer is connected.*
*5 *When a CD/MD changer is connected.*
*6 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 13.

• CONNECTIONS (CDX-GT450/GT450S)



Connection example 2

***Notes* (2-A)**
- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C30 (not supplied) is necessary.

Ejemplo de conexiones 2

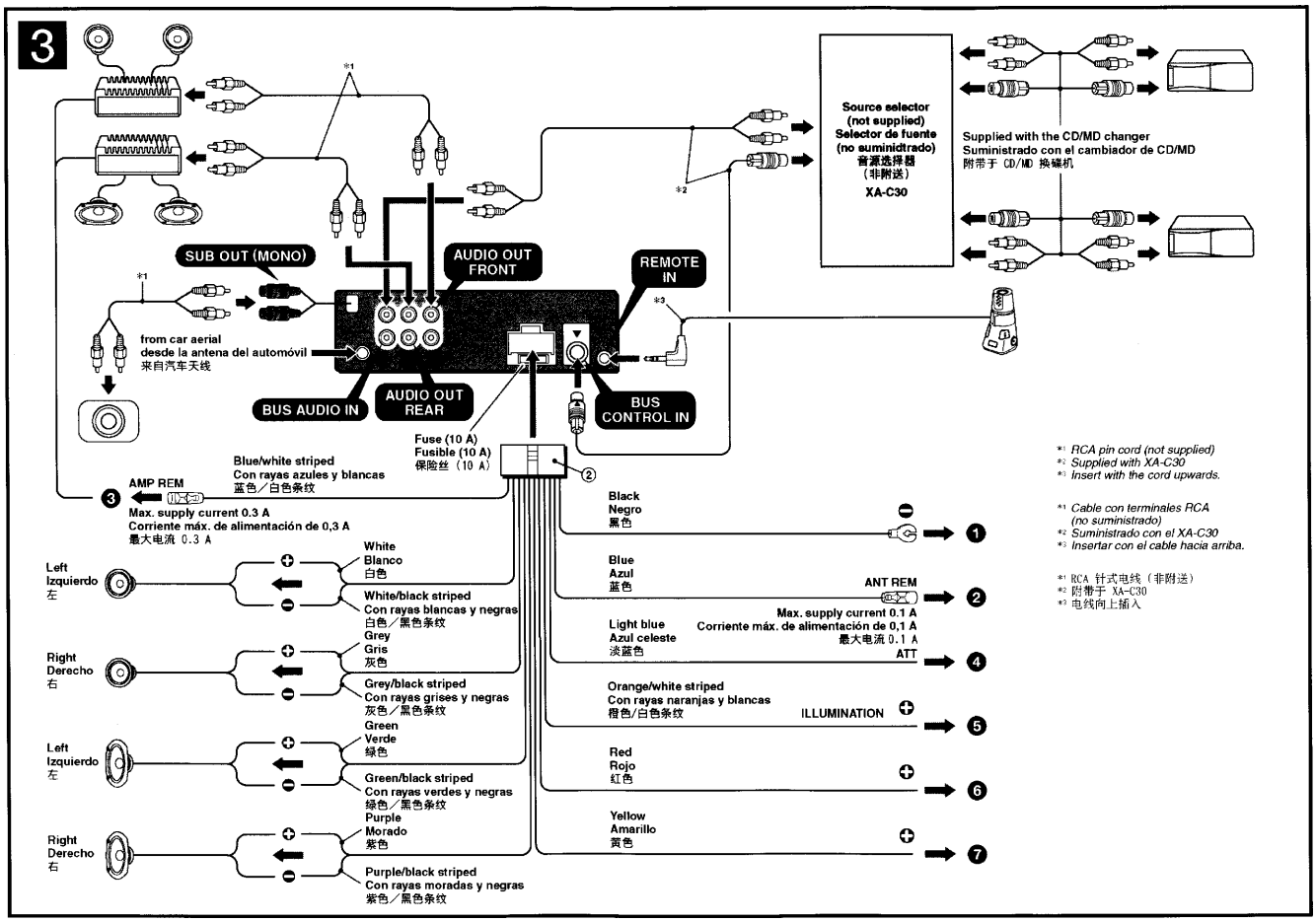
***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.*
- *La alarma sonará únicamente si se utiliza el amplificador incorporado.*

***Sugerencia* (2-B-b)**
Si desea conectar dos o más cambiadores de CD/MD, necesitará el selector de fuente XA-C30 (no suminidtrado).

线路连接图例 2

注 (2-A)
- 务必在连接放大器之前连接接地线。
- 只有在使用内置的放大器时，警报才会发出声响。

提示 (2-B-b)
若要连接 2 台或更多 CD/MD 换碟机，必须使用音源选择器 XA-C30（非附送）。



Connection diagram 3

❶ **To a metal surface of the car**
First connect the black earth lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power aerial control lead or power supply lead of aerial booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black earth lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black earth lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black earth lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión 3

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de conexión a masa negro, y después los cables con rayas naranjas y blancas, amarillo, y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **A AMP REMOTE IN de un amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al cable de interfaz de un teléfono para automóvil**

❺ **A una señal de iluminación del automóvil**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

❻ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallas de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si la unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

线路连接图 3

❶ **至汽车金属表面**
首先连接黑色接地导线，然后连接橙色/白色条纹，黄色以及红色电源输入导线。

❷ **至电动天线控制导线或天线升缩放大器的电源导线**
注
- 如果没有电动天线或天线升缩器，或有手动伸缩式天线，则无需连接此导线。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❸ **至选购的功率放大器的 AMP REMOTE IN**
此连接仅适用于功率放大器。连接其它系统可能损坏本机。

❹ **至车载电话接口电缆**

❺ **至汽车照明信号**
必须首先将黑色接地导线连接至汽车的金属表面。

❻ **至 +12 V 电源端子，该端子在点火开关附件位置通电**
注
- 如果没有附件位置，则连接至 +12 V 电源（蓄电池）端子，该端子随时处于通电状态。
  确保首先将黑色接地导线连接至汽车金属表面。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❼ **至 +12 V 电源端子，该端子随时处于通电状态**
确保首先将黑色接地导线连接至汽车金属表面。

关于控制导线和电源导线的注意事项
- 接通调谐器电源时，电动天线的控制导线（蓝色）便能提供 +12 V 直流电。
- 当汽车的后/侧玻璃窗上有内置 FM/AM 天线时，请将电动天线控制线（蓝色）或辅助电源输入电线（红色）连接至现有天线升缩器上的电源端子上。详细说明，请与您的经销商联系。
- 本机不能使用不具备继电器盒的电动天线。

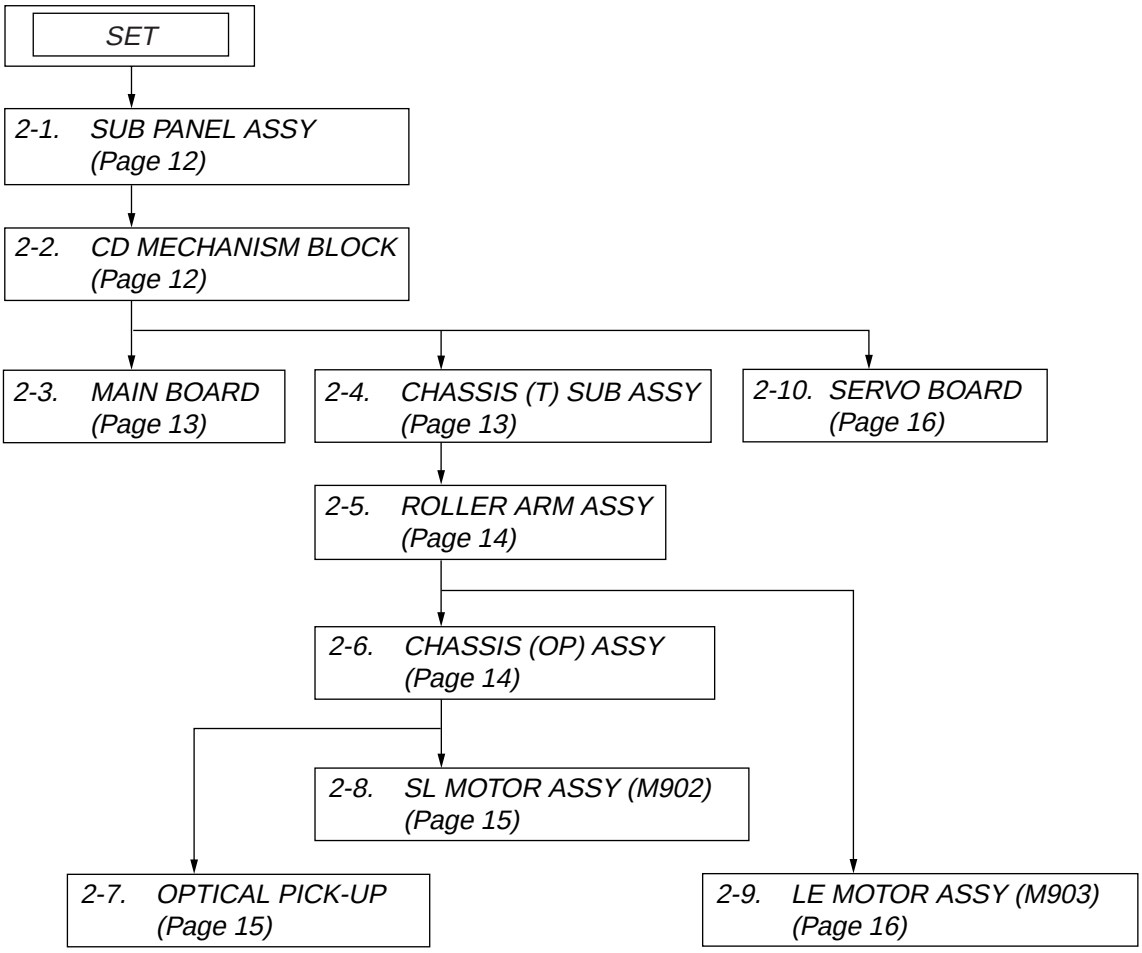
保持记忆的线路连接法
当连接了黄色的电源输入电线时，即便点火开关关闭，电源仍将对记忆电路供电。

关于扬声器连接的注意事项
- 连接扬声器之前，请关闭本机电源。
- 请使用阻抗为 4-8 欧姆且具有足够功率处理能力的扬声器，以免损坏。
- 勿将扬声器端子连接到汽车底盘上，或将右扬声器的端子与左扬声器的端子连接。
- 勿将本机的接地线连接到扬声器的负极（–）端子上。
- 扬声器不可并联连接。
- 请仅连接无源扬声器。将有源扬声器（具有内置放大器）连接到扬声器端子可能会损坏本机。
- 若本机使用左、右扬声器的共用负极（–）电线，为了避免故障，切勿使用安装在汽车内的内置扬声器电线。
- 请勿将本机扬声器电线相互连接。

连接的注意事项
如果未正确连接扬声器和放大器，则显示屏上会出现“FAILURE”。这时，请确保扬声器和放大器连接正确。

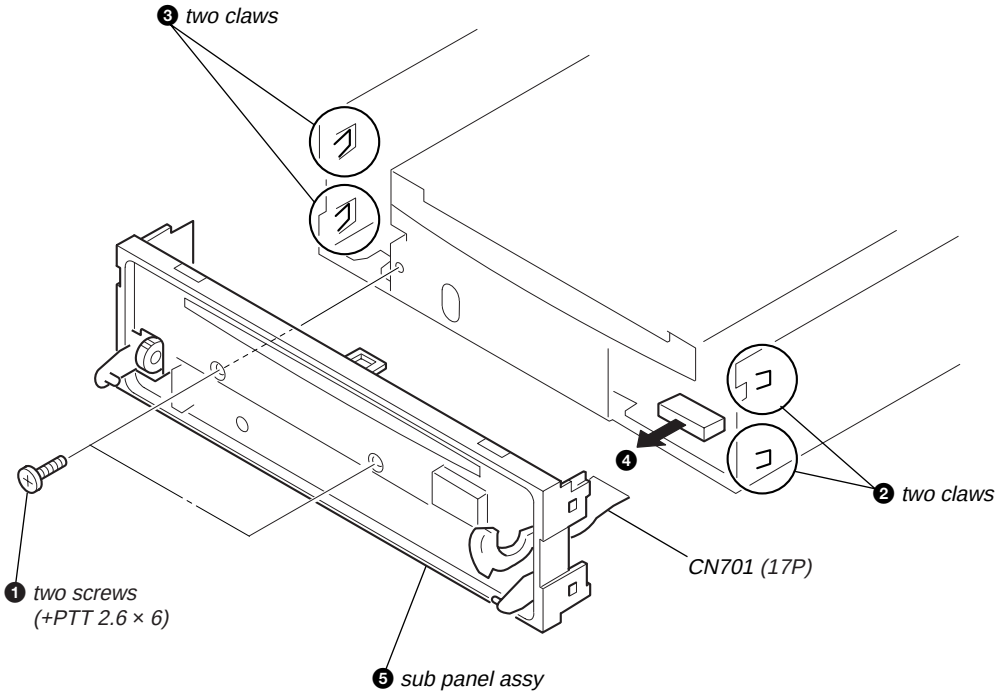
SECTION 2
DISASSEMBLY

Note: This set can be disassemble according to the following sequence.

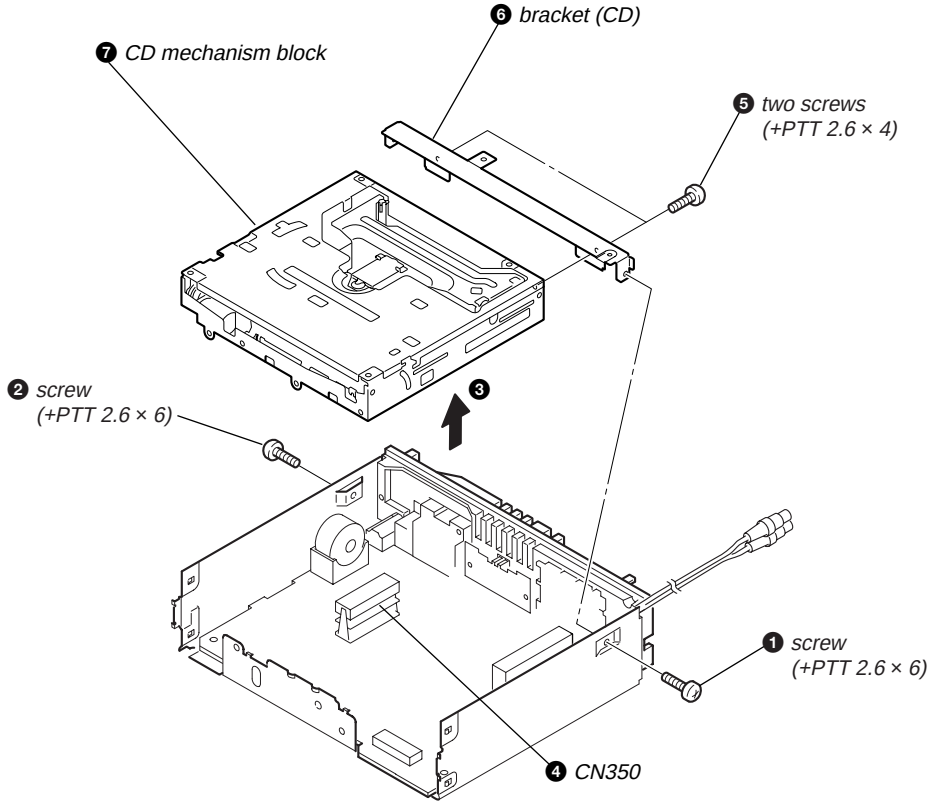

SET
2-1. SUB PANEL ASSY (Page 12)
2-2. CD MECHANISM BLOCK (Page 12)
2-3. MAIN BOARD (Page 13)
2-4. CHASSIS (T) SUB ASSY (Page 13)
2-10. SERVO BOARD (Page 16)
2-5. ROLLER ARM ASSY (Page 14)
2-6. CHASSIS (OP) ASSY (Page 14)
2-8. SL MOTOR ASSY (M902) (Page 15)
2-7. OPTICAL PICK-UP (Page 15)
2-9. LE MOTOR ASSY (M903) (Page 16)

Note: Follow the disassembly procedure in the numerical order given.

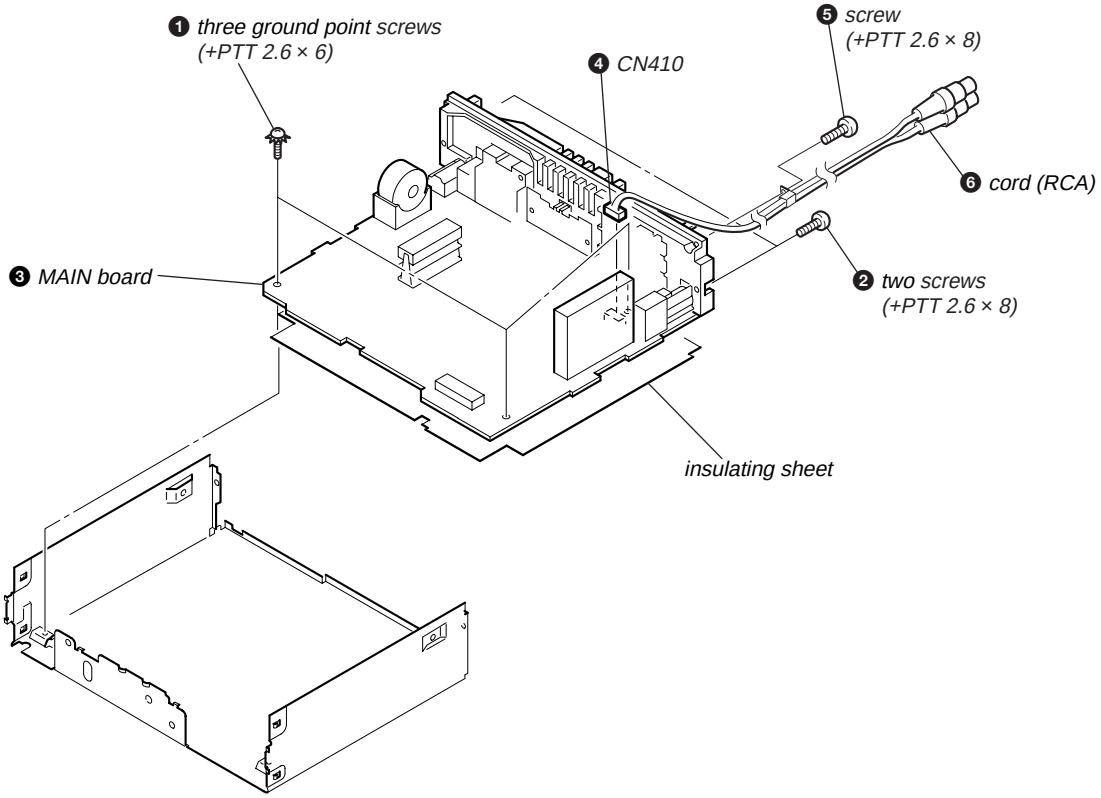
2-1. SUB PANEL ASSY



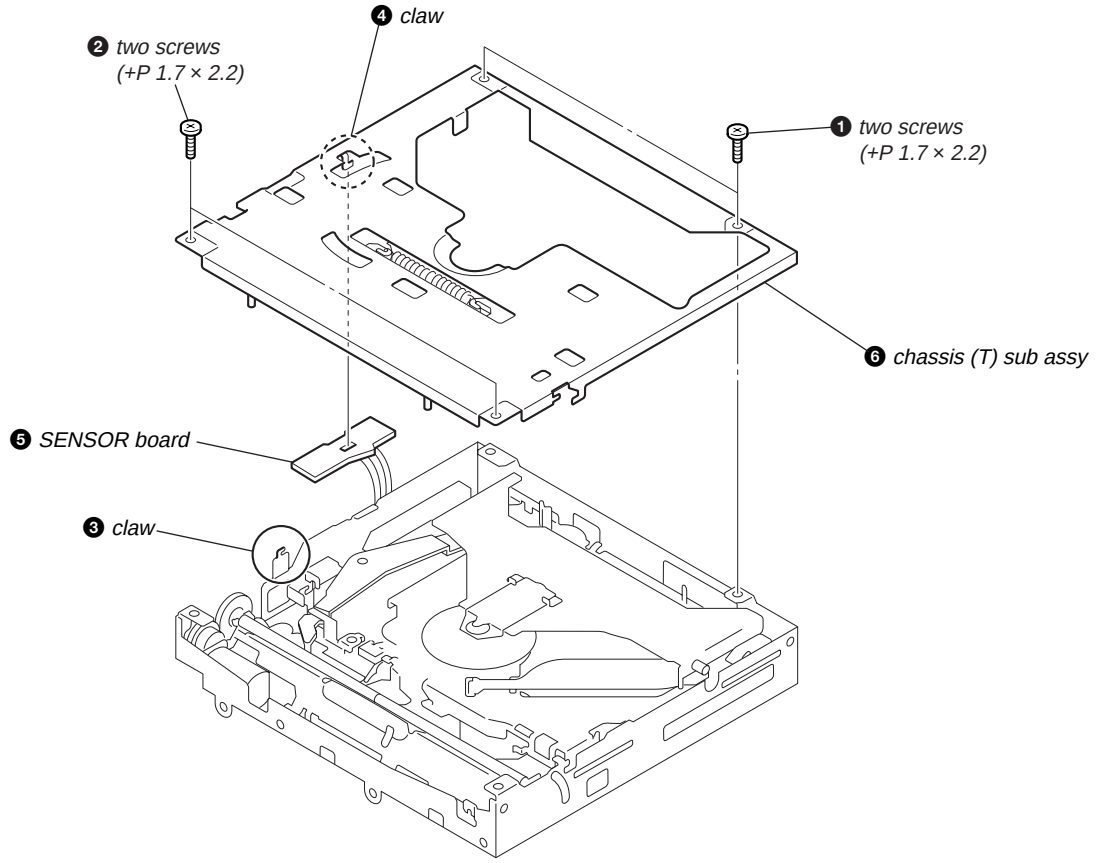
2-2. CD MECHANISM BLOCK



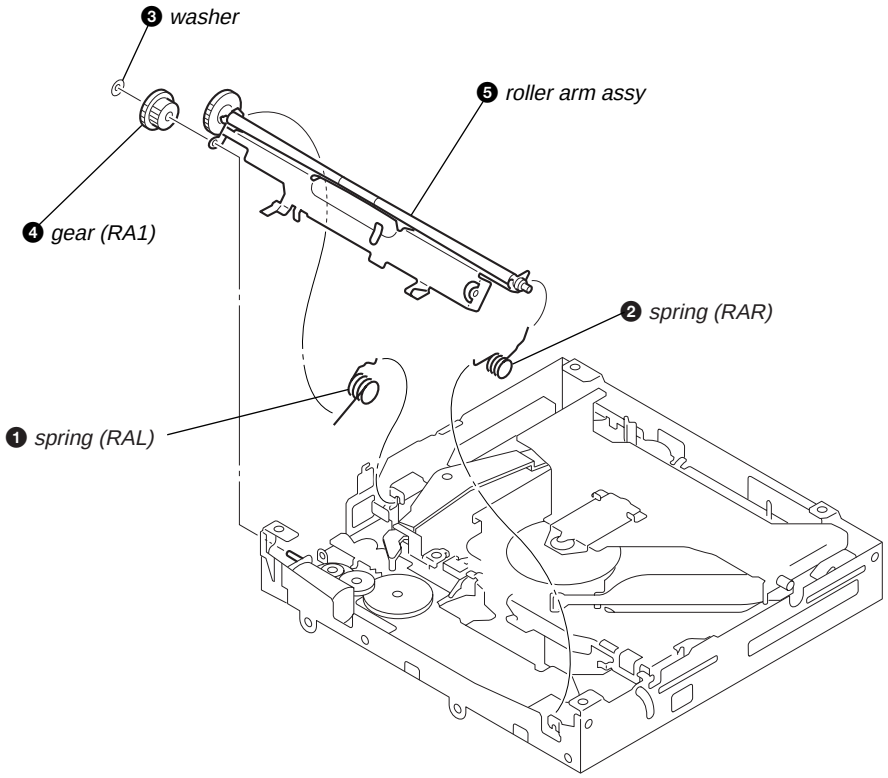
2-3. MAIN BOARD



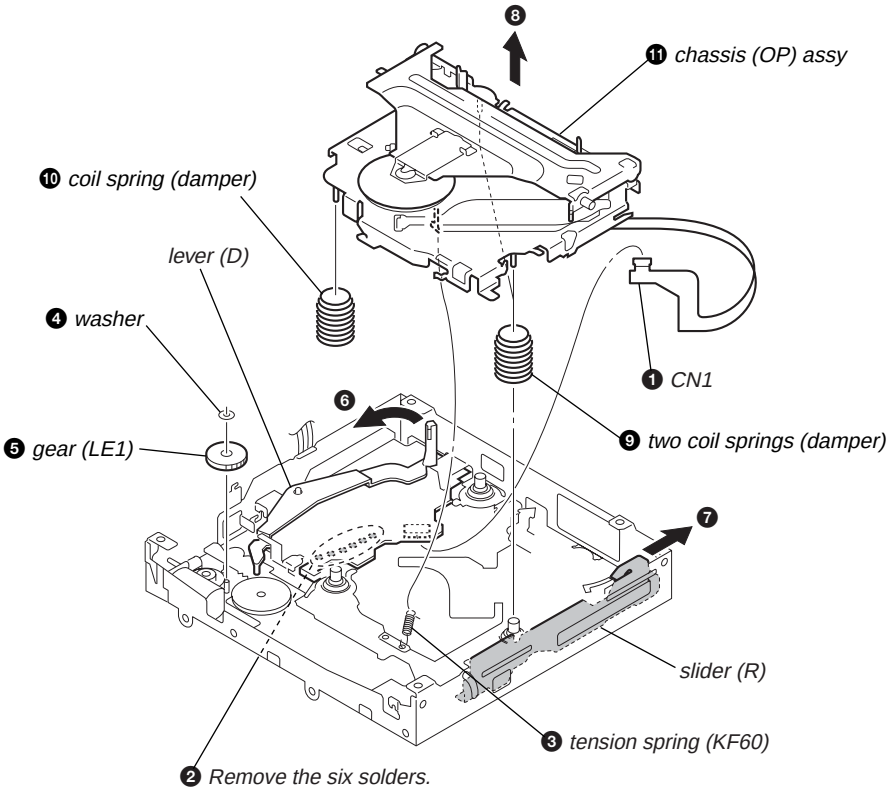
2-4. CHASSIS (T) SUB ASSY



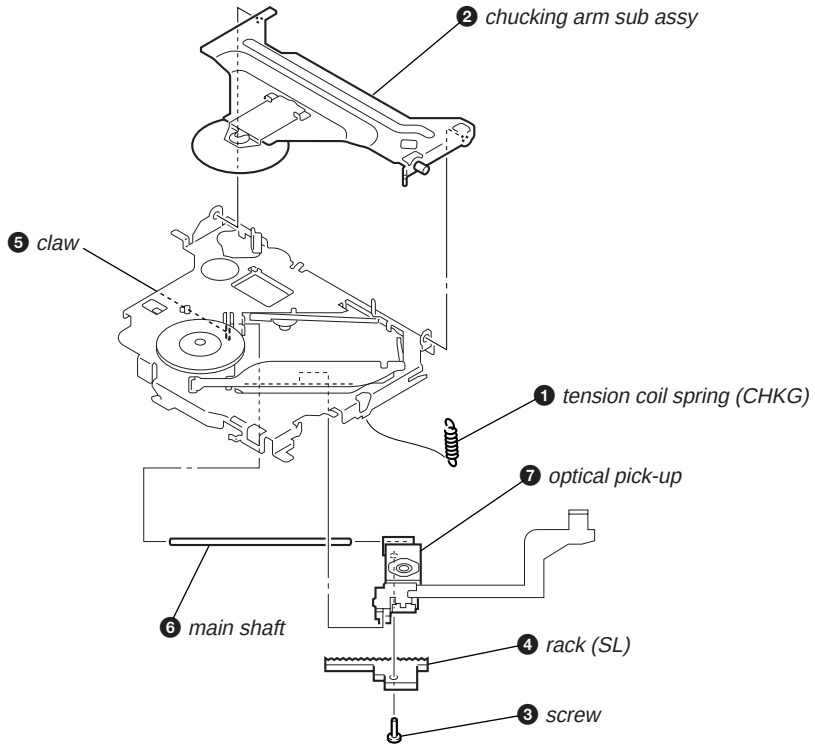
2-5. ROLLER ARM ASSY



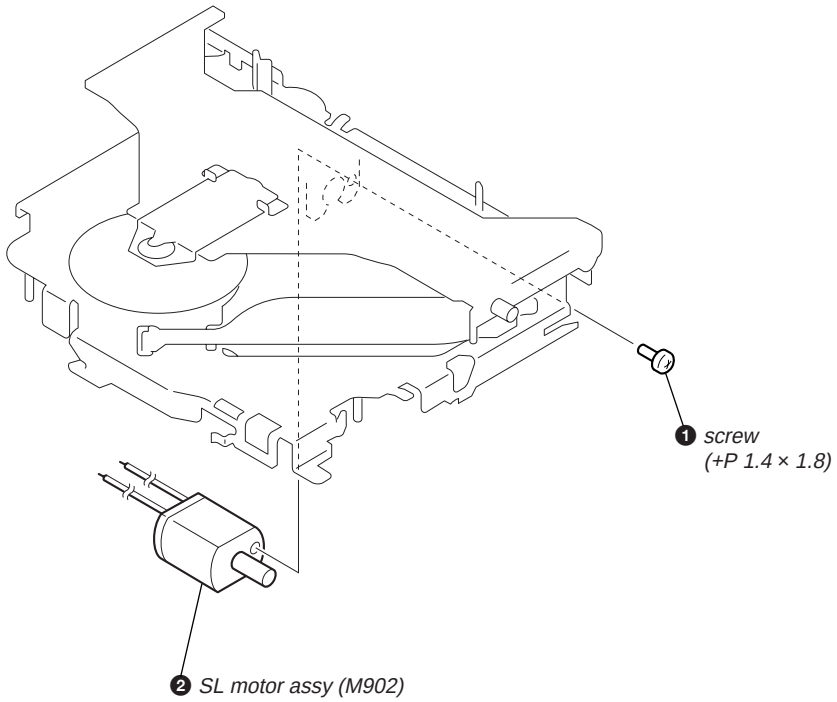
2-6. CHASSIS (OP) ASSY



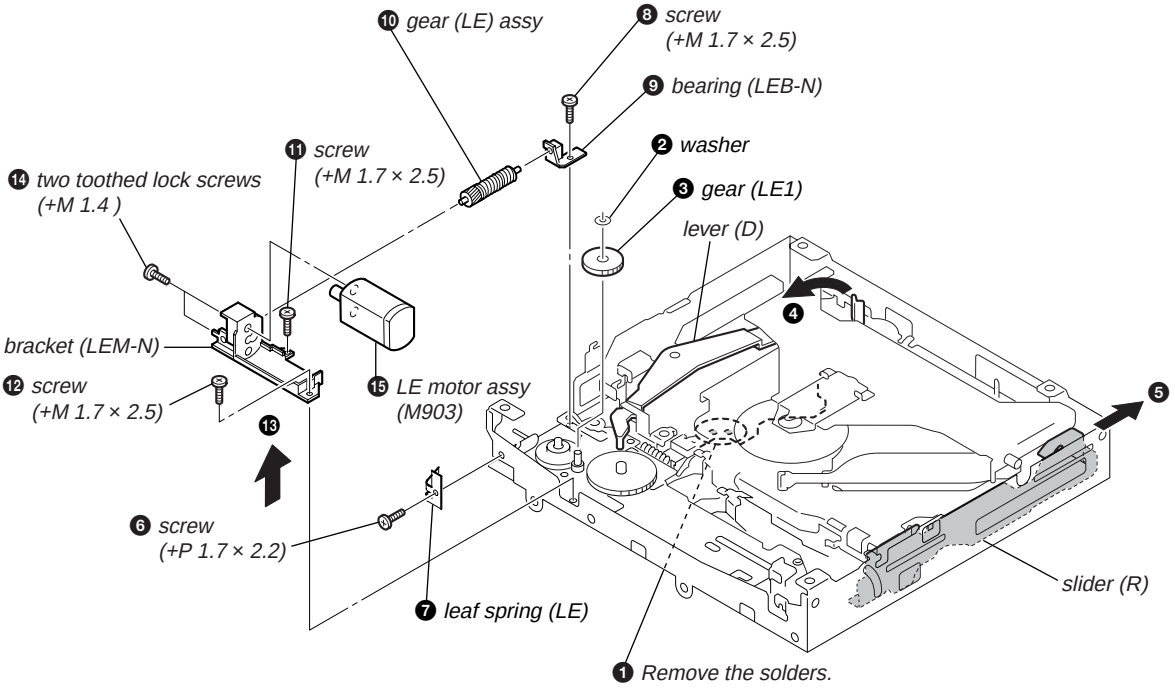
2-7. OPTICAL PICK-UP



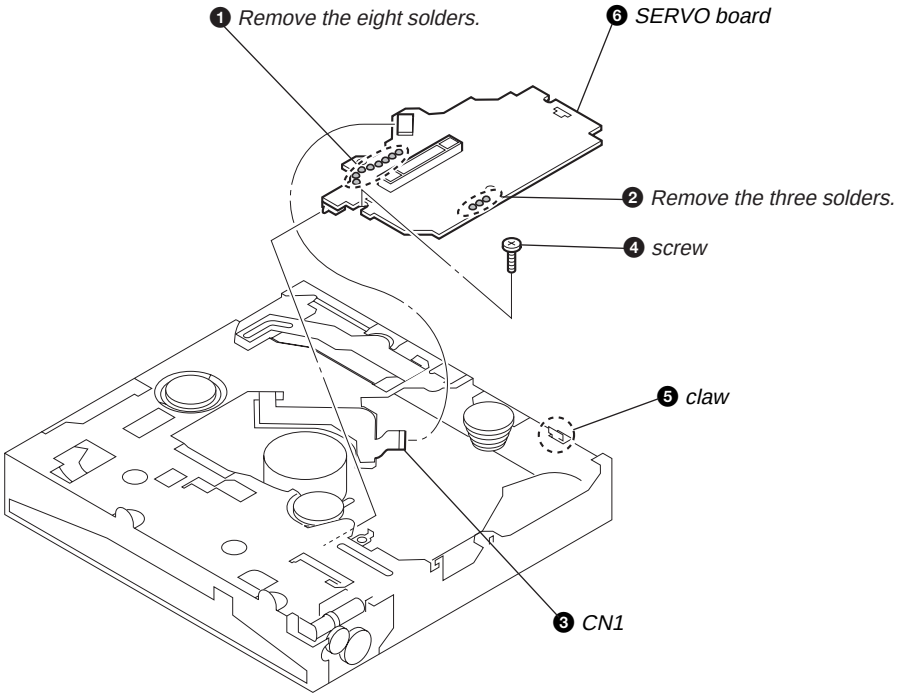
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

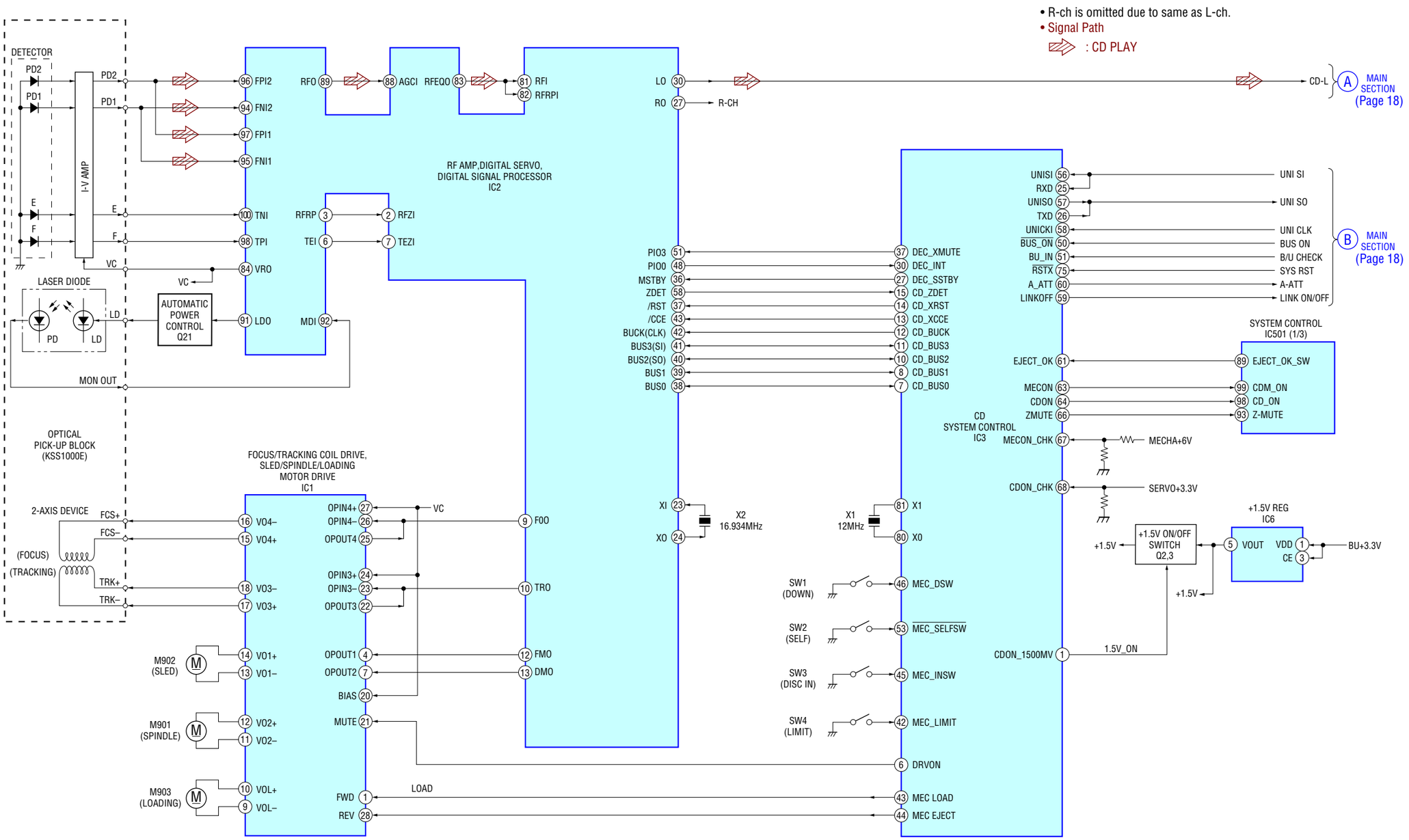


2-10. SERVO BOARD

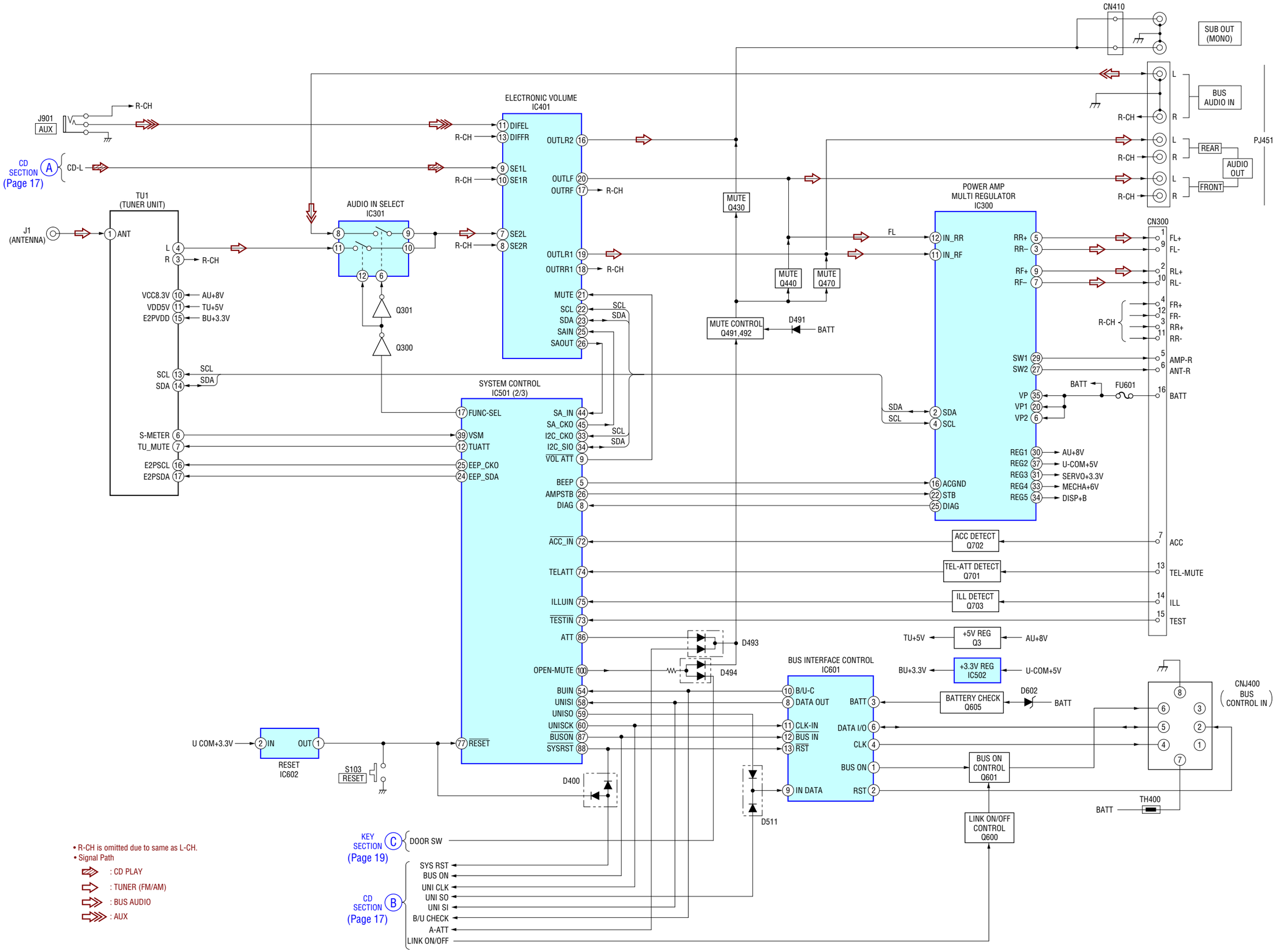


SECTION 3
DIAGRAMS

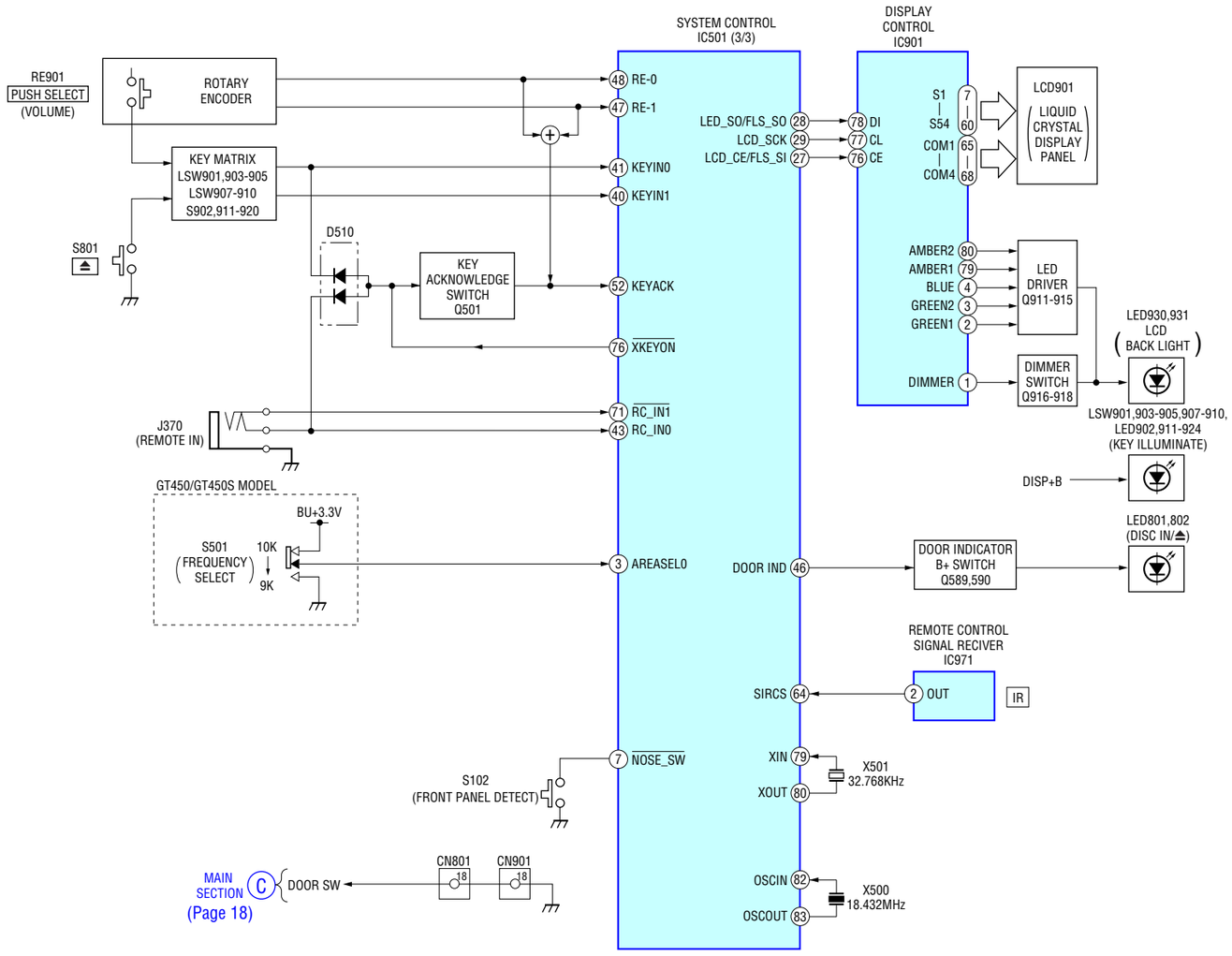
3-1. BLOCK DIAGRAM — CD SECTION —



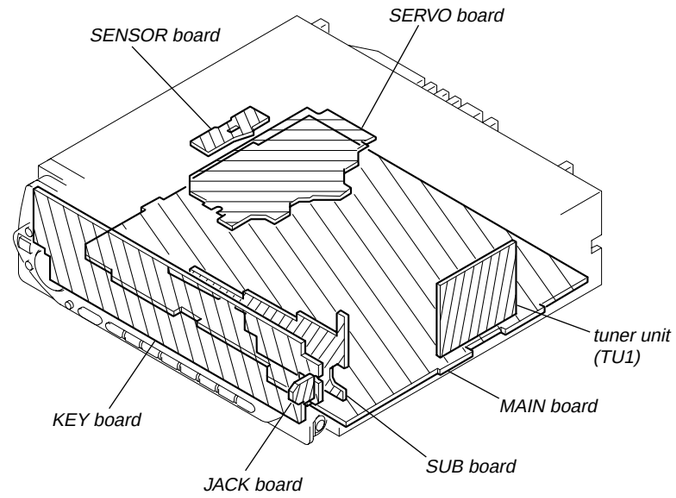
3-2. BLOCK DIAGRAM — MAIN SECTION —



3-3. BLOCK DIAGRAM — KEY SECTION —



3-4. CIRCUIT BOARDS LOCATION



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/2), (2/2) and Key sections
  no mark : FM/AM
  < > : CD PLAY
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM/AM
  ⇨ : BUS AUDIO
  ⇨ : AUX
- Abbreviation
  CND : Canadian model.

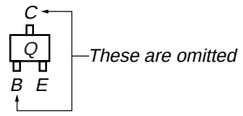
For printed wiring boards.

Note:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



These are omitted

These are omitted

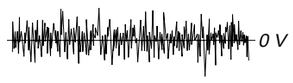
These are omitted

- Abbreviation
  CND : Canadian model.

• Waveforms

— SERVO Board — (CD PLAY)

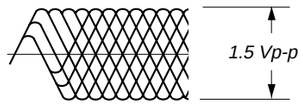
① IC2 ⑤ (FEI)



Approx. 100 mVp-p

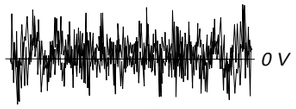
50 mV/DIV, 5 msec/DIV

⑤ IC2 ⑭ (FNI2), ⑮ (FNI1)



0.5 V/DIV, 0.5 µsec/DIV

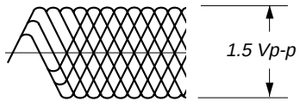
② IC2 ⑥ (TEI)



Approx. 400 mVp-p

200 mV/DIV, 5 msec/DIV

⑥ IC2 ⑯ (FPI2), ⑰ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

③ IC2 ㉓ (XI)

16.9344 MHz

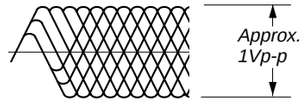
0.2 V/DIV, 0.2 µsec/DIV

⑦ IC3 ㊶ (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

④ IC2 ㊶ (RFI)



0.5 V/DIV, 0.5 µsec/DIV

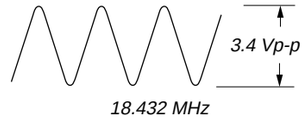
— MAIN Board —

① IC501 ㊽ (XOUT)

32.768 kHz

0.2 V/DIV, 20 µsec/DIV

② IC501 ㊸ (OSCOUT)

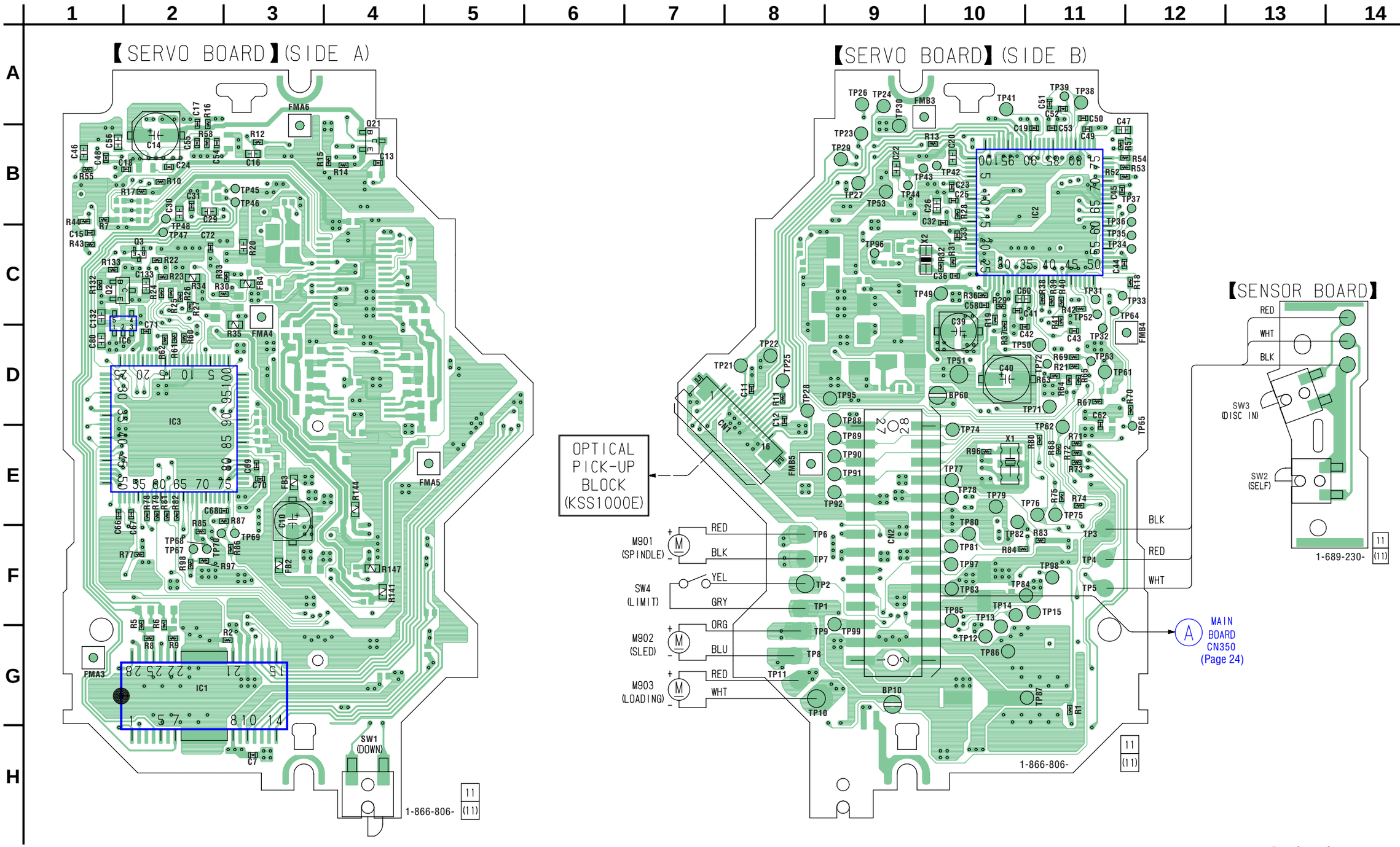


18.432 MHz

0.5 V/DIV, 0.1 µsec/DIV

3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION —

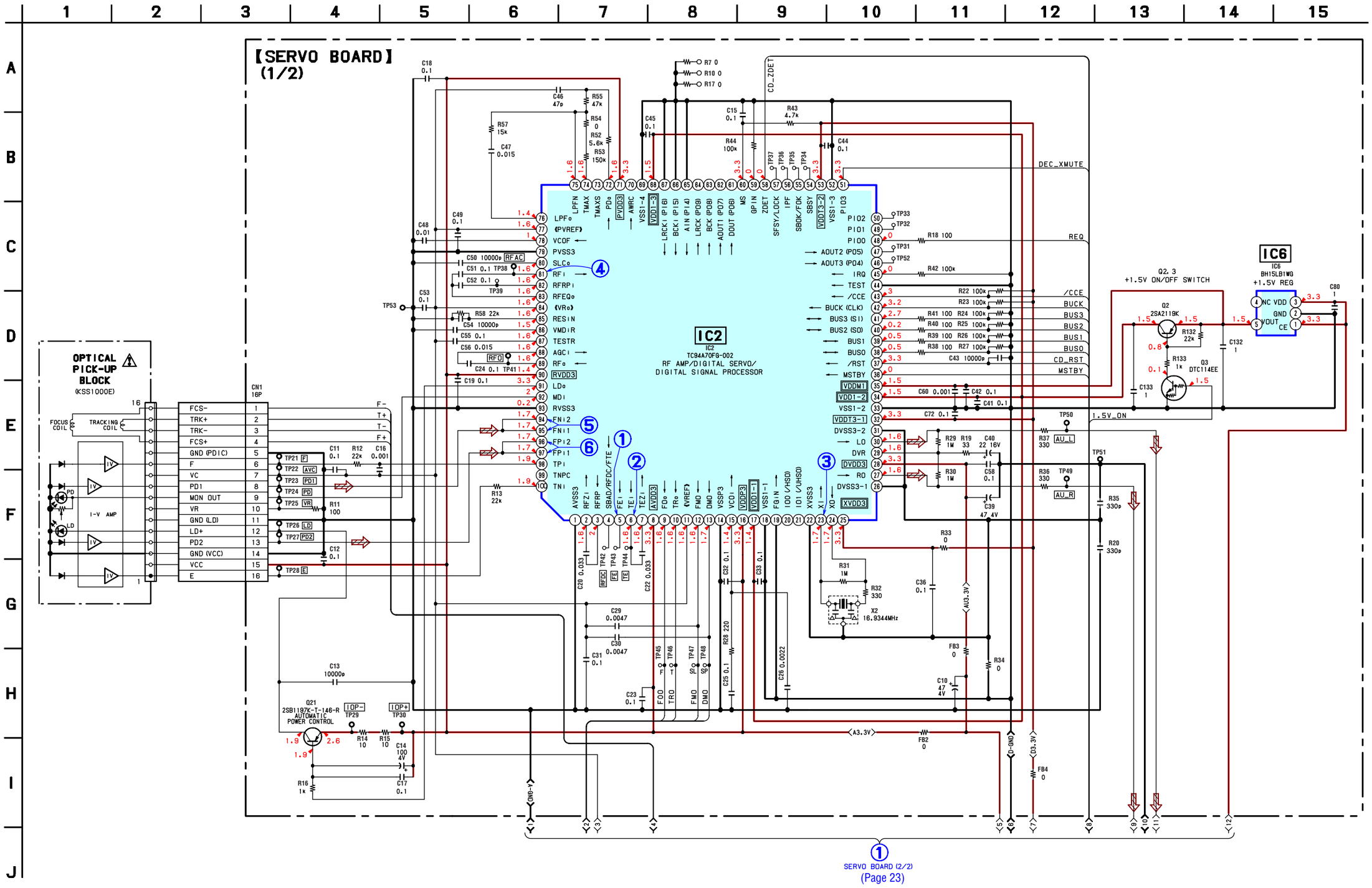
• Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

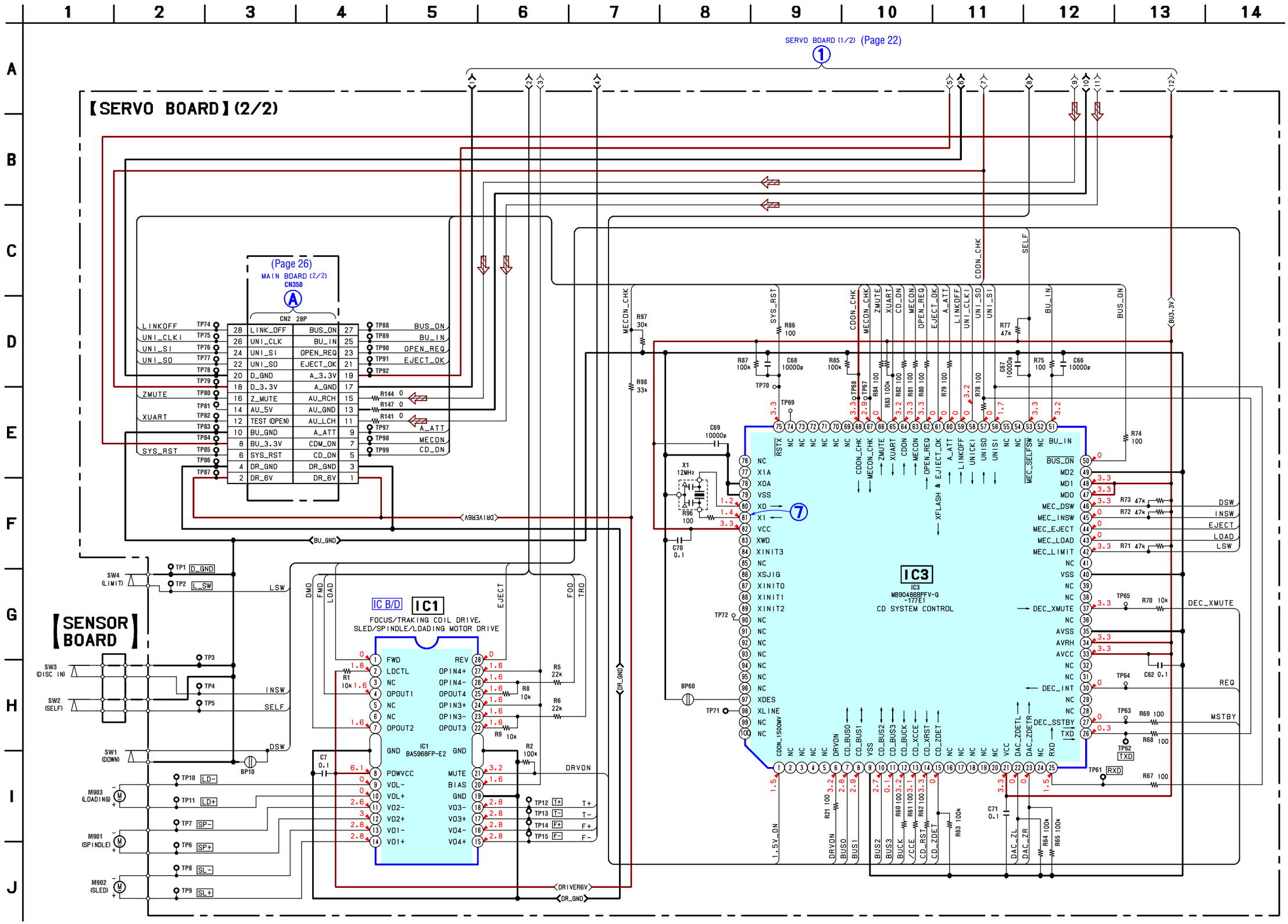
Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q2	C-1
Q3	C-2
Q21	B-4

3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 20 for Waveforms.



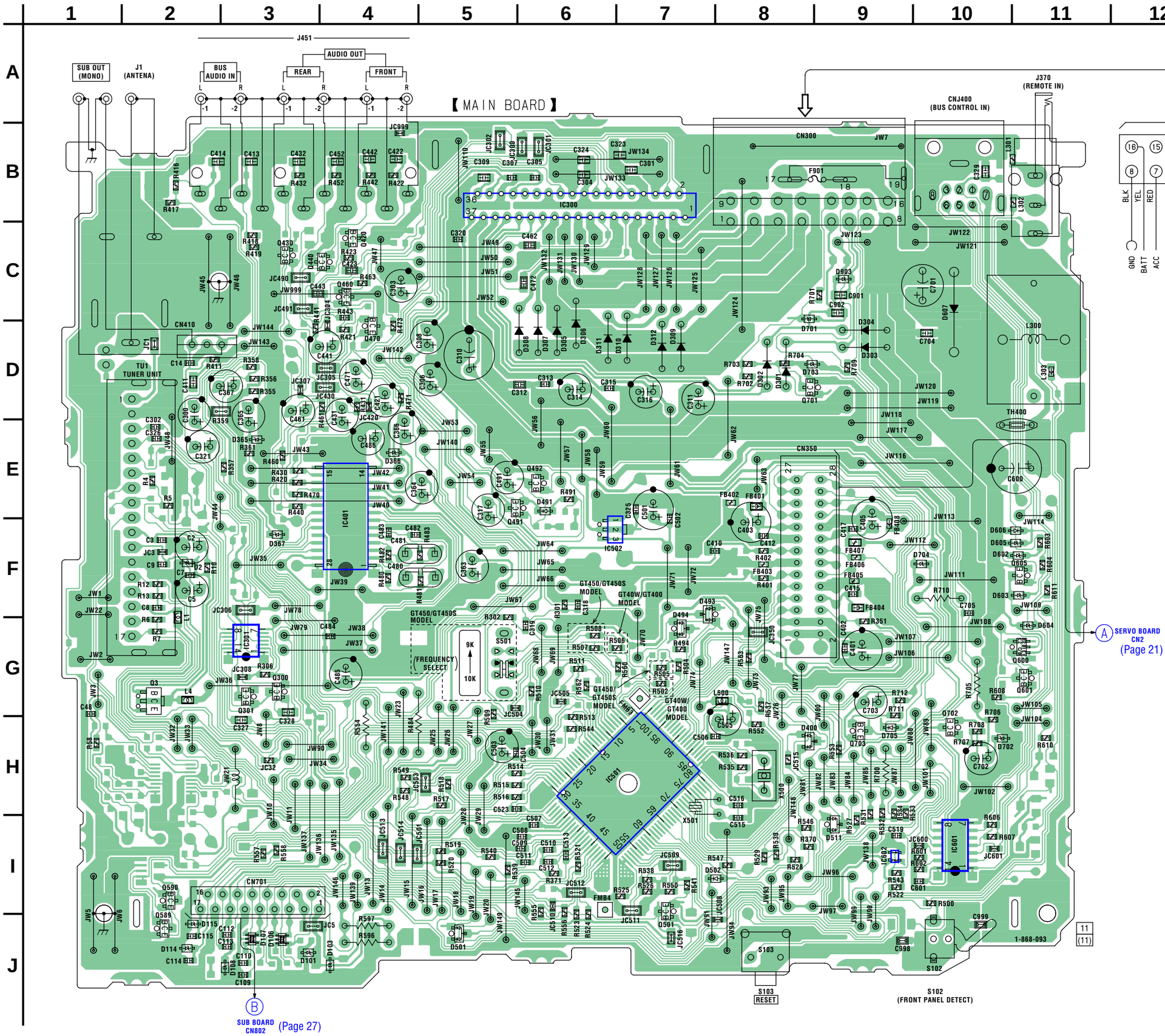
3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

• Refer to page 20 for Waveform.
• Refer to page 31 for IC Block Diagram.
• Refer to page 34 for IC Pin Descriptions.



3-8. PRINTED WIRING BOARD — MAIN SECTION —

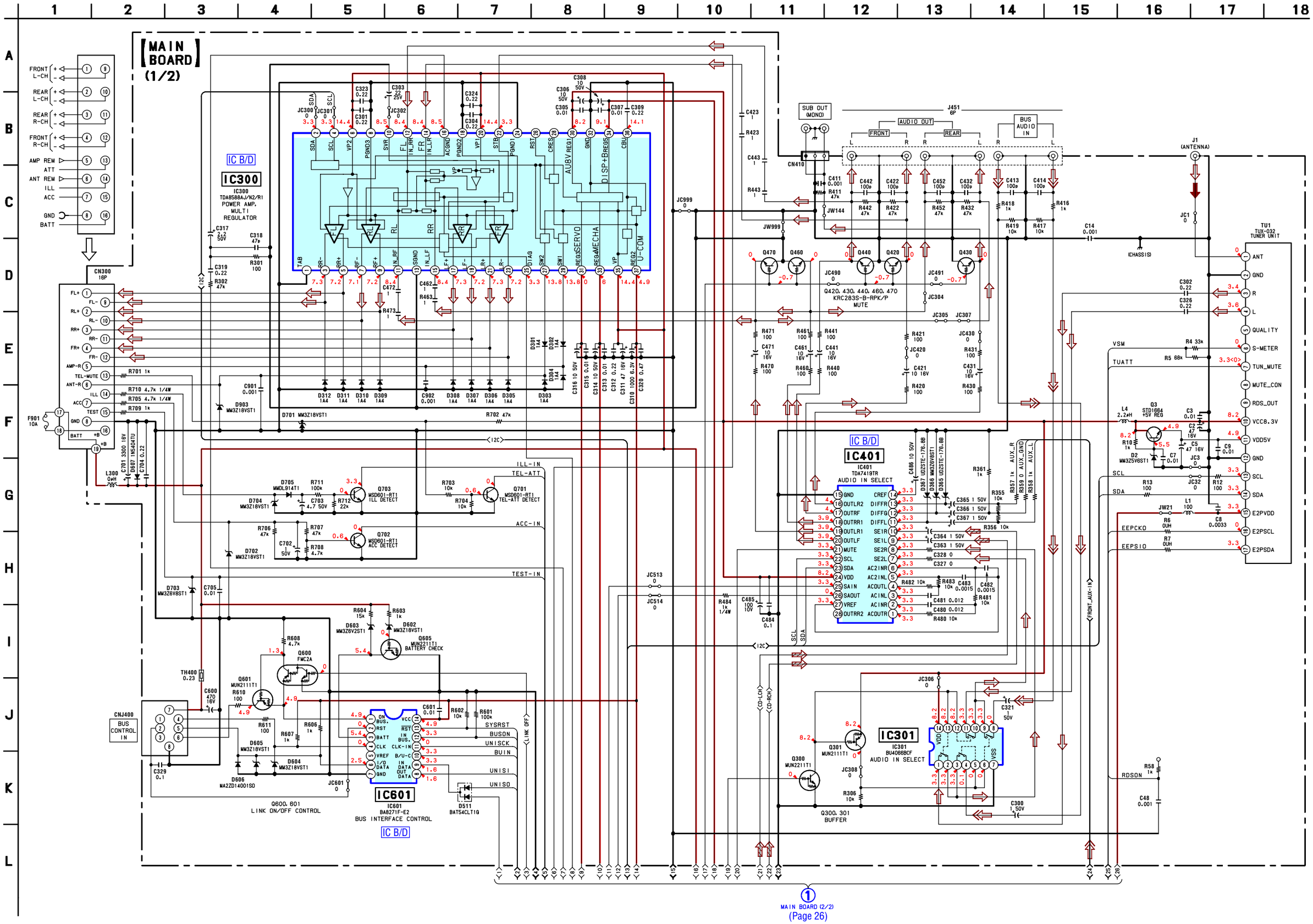
• Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

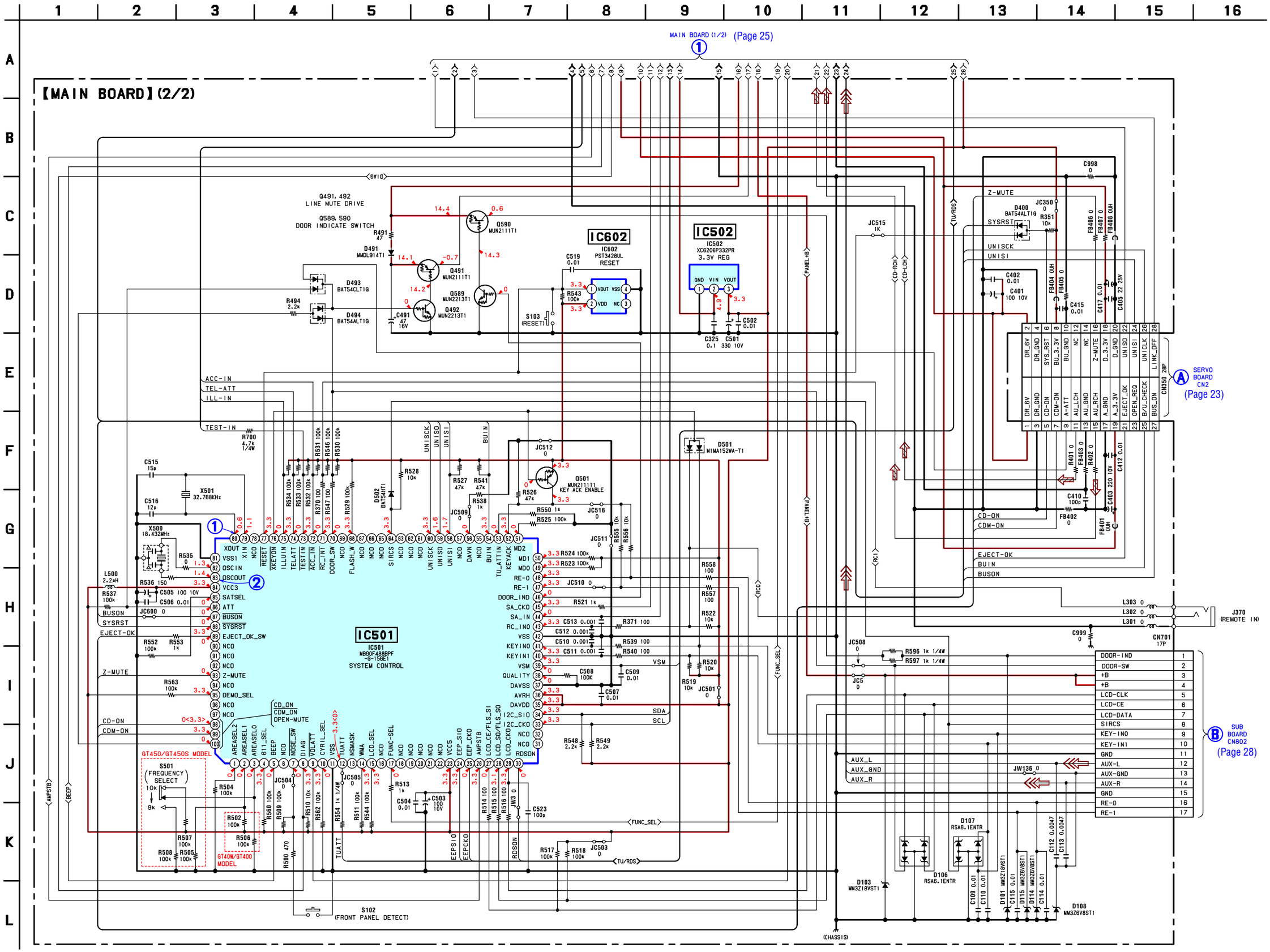
Ref. No.	Location	Ref. No.	Location
D2	F-2	D607	C-10
D101	J-3	D701	D-8
D103	J-4	D702	H-10
D106	J-3	D703	D-8
D107	J-3	D704	F-10
D108	J-3	D705	H-9
D114	J-2	D903	C-9
D115	J-2		
D301	D-8	IC300	B-6
D302	D-8	IC301	G-3
D303	D-9	IC401	F-4
D304	D-9	IC501	H-6
D305	D-6	IC502	F-6
D306	D-6	IC601	I-10
D307	D-6	IC602	I-9
D308	D-6		
D309	D-7	Q3	G-2
D310	D-7	Q300	G-3
D311	D-6	Q301	G-3
D312	D-7	Q420	C-4
D365	E-3	Q430	C-3
D366	E-4	Q440	C-3
D367	F-3	Q460	C-4
D400	H-8	Q470	D-4
D491	E-6	Q491	F-5
D493	F-7	Q492	E-6
D494	F-7	Q501	J-7
D501	J-5	Q589	J-2
D502	I-7	Q590	I-2
D511	I-9	Q600	G-11
D602	F-10	Q601	G-11
D603	F-10	Q605	F-11
D604	G-11	Q701	D-8
D605	F-10	Q702	G-10
D606	F-10	Q703	H-9

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 31 for IC Block Diagrams.



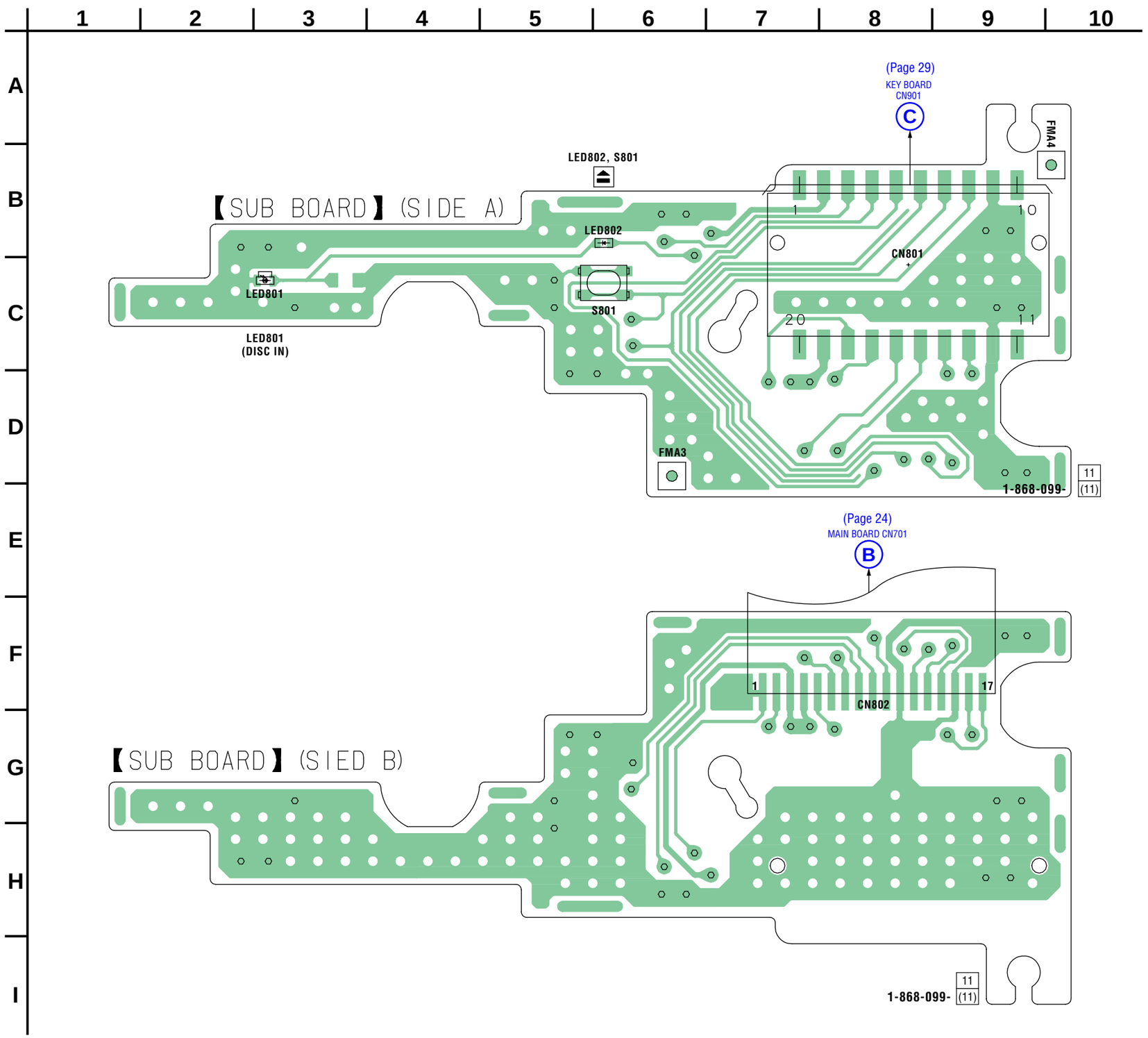
3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) —

- Refer to page 20 for Waveforms.
- Refer to page 36 for Pin Descriptions.

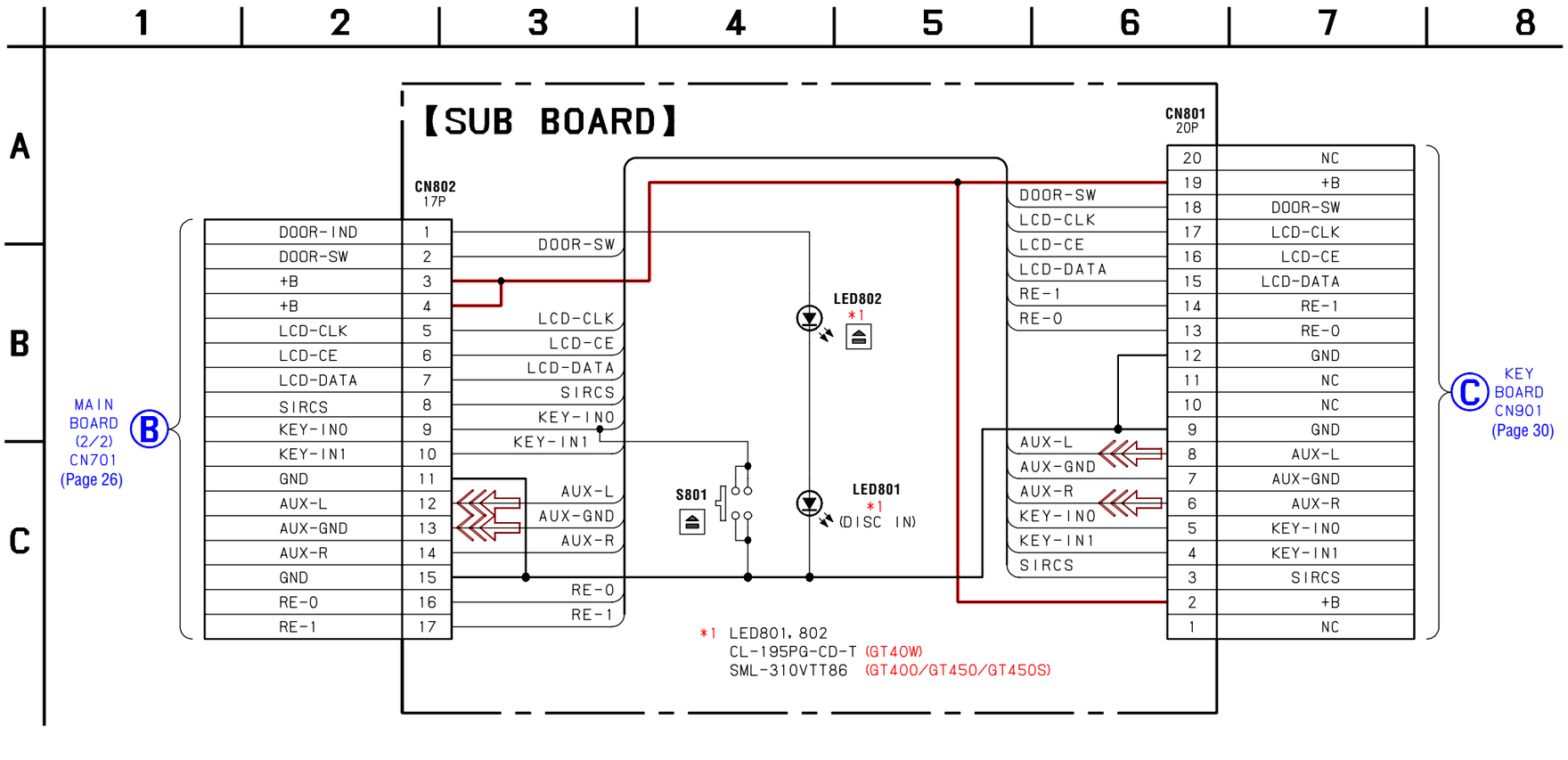


3-11. PRINTED WIRING BOARD — SUB SECTION —

• Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.

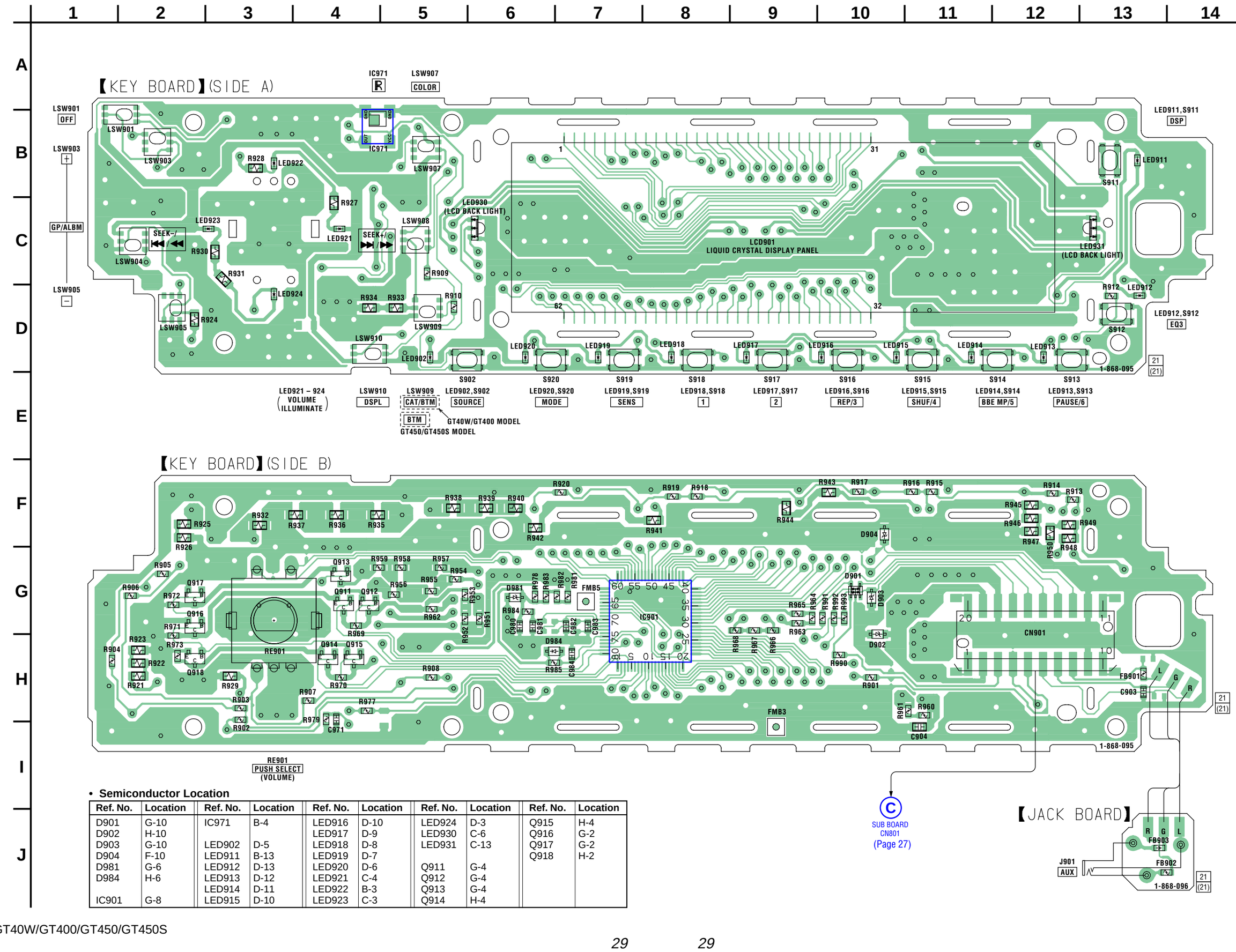


3-12. SCHEMATIC DIAGRAM — SUB SECTION —



3-13. PRINTED WIRING BOARD — KEY SECTION —

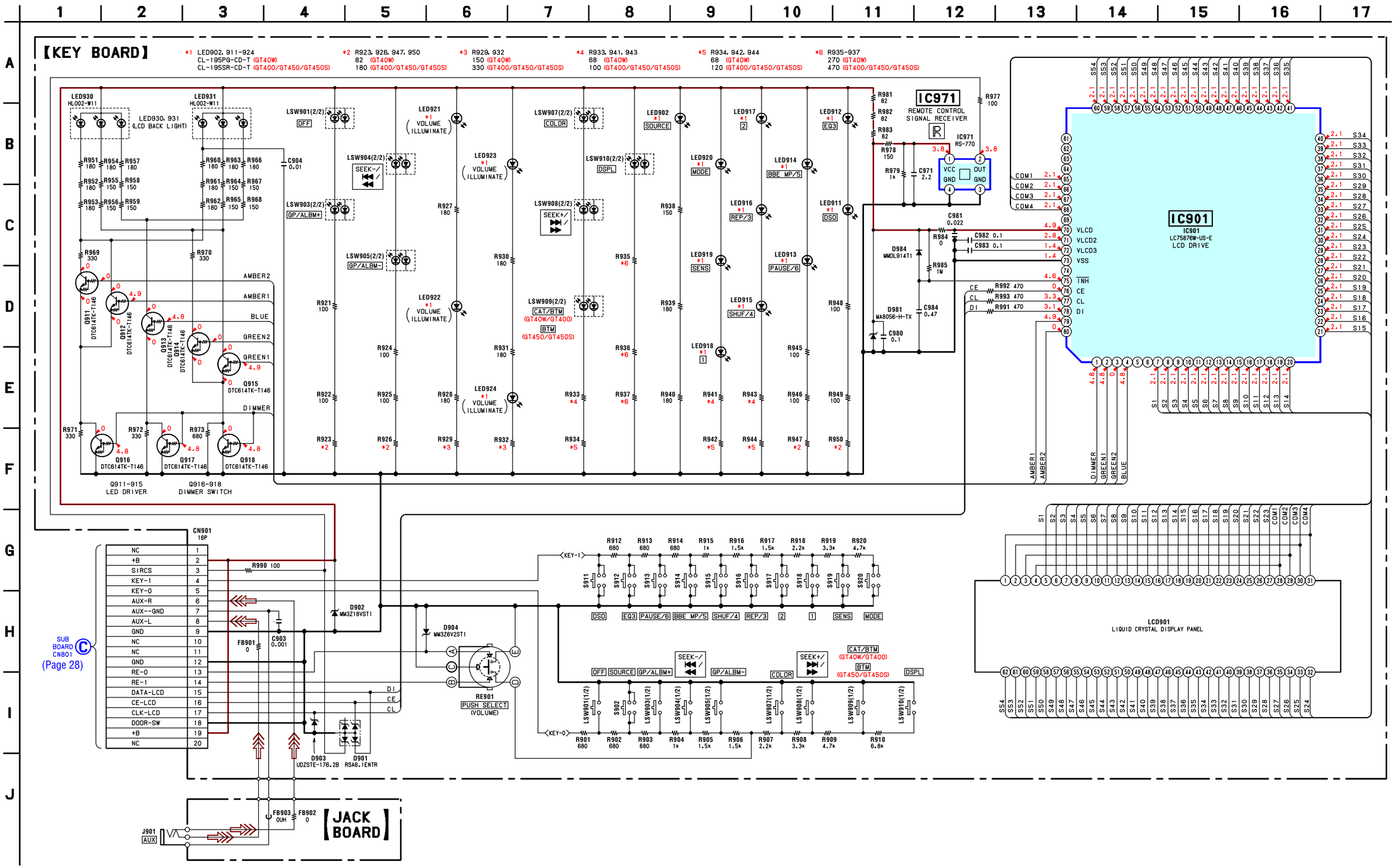
• Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

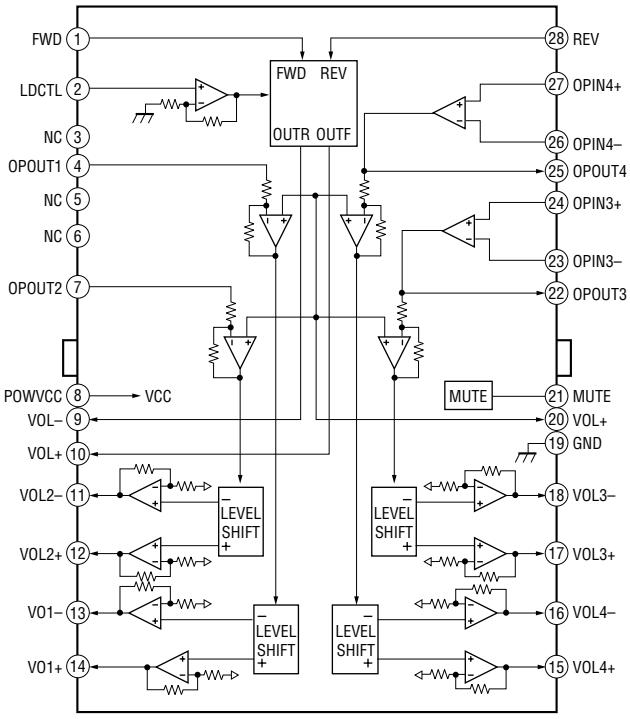
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D901	G-10	IC971	B-4	LED916	D-10	LED924	D-3	Q915	H-4
D902	H-10			LED917	D-9	LED930	C-6	Q916	G-2
D903	G-10	LED902	D-5	LED918	D-8	LED931	C-13	Q917	G-2
D904	F-10	LED911	B-13	LED919	D-7			Q918	H-2
D981	G-6	LED912	D-13	LED920	D-6	Q911	G-4		
D984	H-6	LED913	D-12	LED921	C-4	Q912	G-4		
		LED914	D-11	LED922	B-3	Q913	G-4		
IC901	G-8	LED915	D-10	LED923	C-3	Q914	H-4		

3-14. SCHEMATIC DIAGRAM — KEY SECTION —

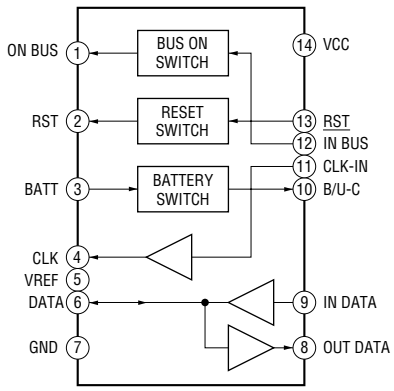


• IC BLOCK DIAGRAMS

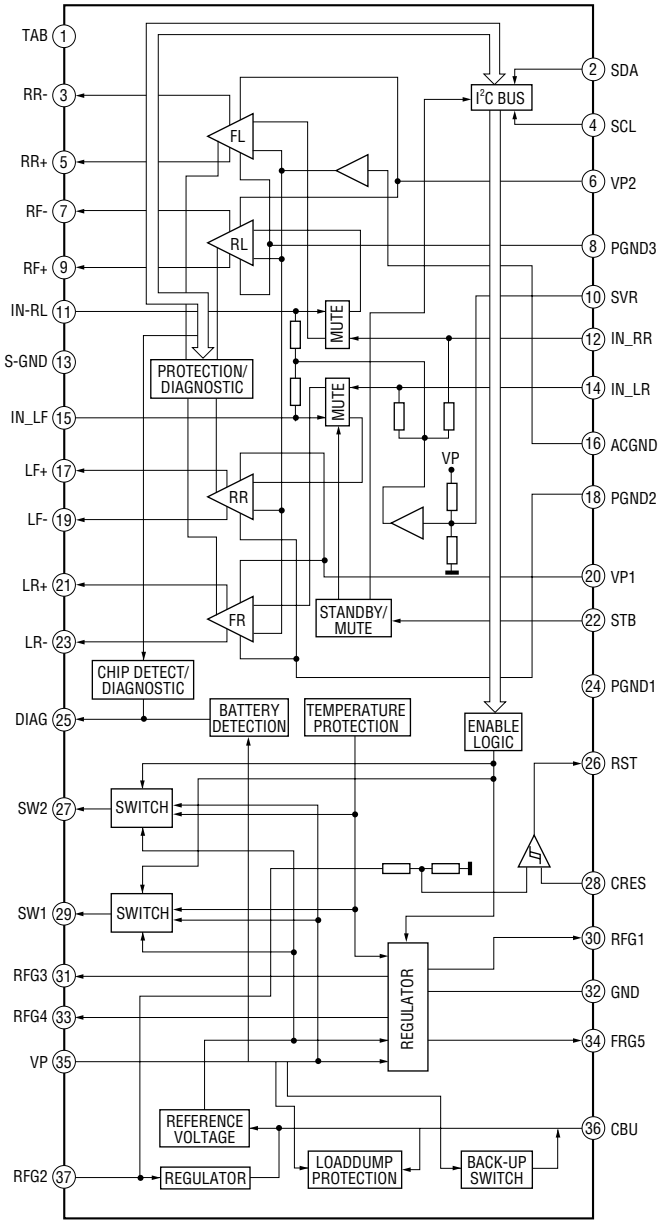
IC1 BA5968FP-E2 (SERVO Board (2/2))



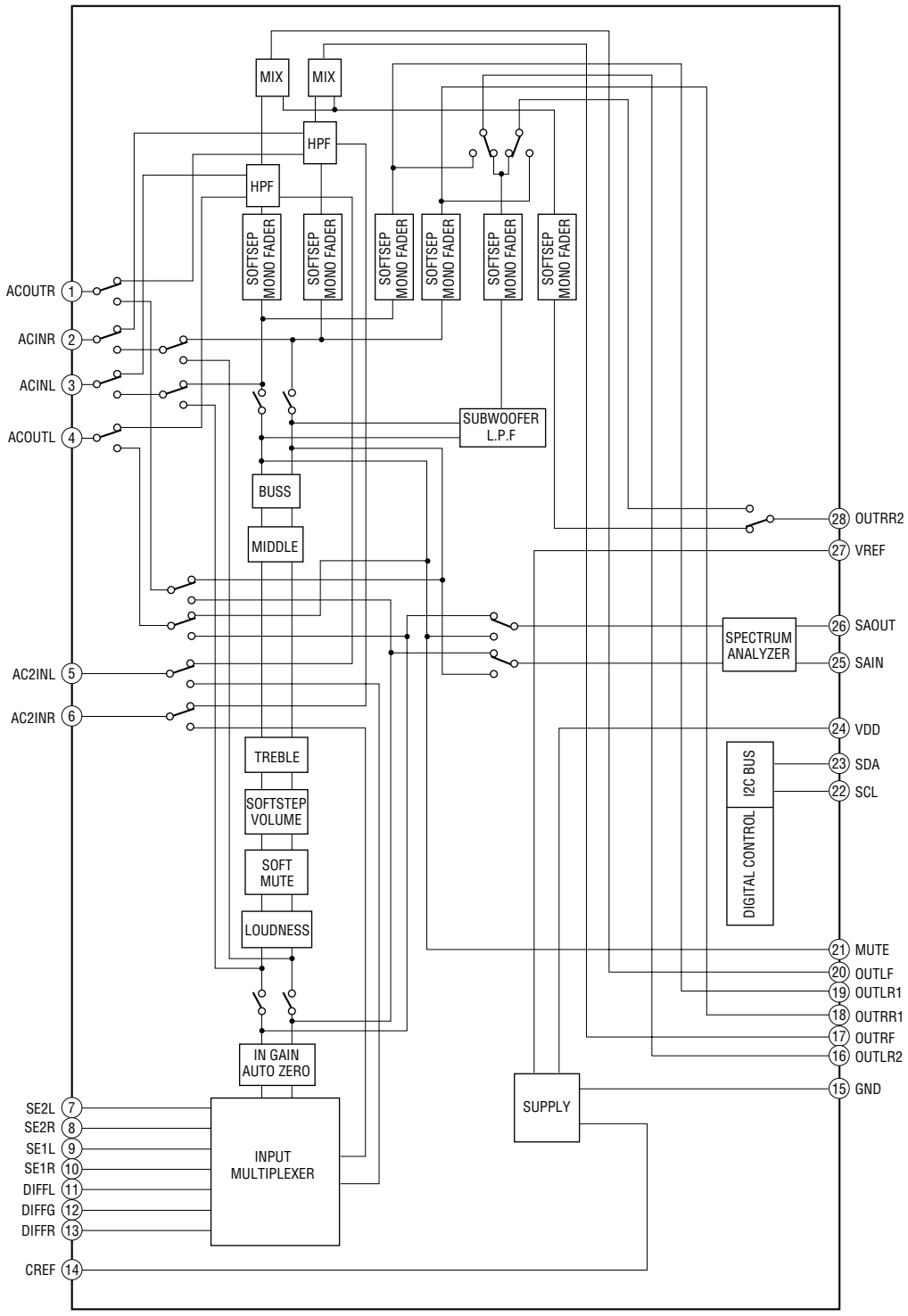
IC601 BA8271F-E2 (MAIN Board (1/2))



IC300 TDA8588AJ/N2/R1 (MAIN Board (1/2))



IC401 TDA7419TR (MAIN Board (1/2))



• IC PIN DESCRIPTIONS

• IC3 MB90486BPFV-G-177E1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	CDON_1500MV	O	Servo 1.5 V power supply control signal output
2 to 5	NC	—	Not used. (Open)
6	DRVON	O	Motor drive mute signal output
7	CD_BUS0	I/O	Bus data input/output 0
8	CD_BUS1	I/O	Bus data input/output 1
9	VSS	—	Ground
10	CD_BUS2	I/O	Bus data input/output 2
11	CD_BUS3	I/O	Bus data input/output 3
12	CD_BUCK	O	Bus clock signal output
13	CD_XCCE	O	Chip enable signal output
14	CD_XRST	O	Reset signal output
15	CD_ZDET	I	Zero detection signal input
16 to 20	NC	—	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC_ZDETL	I	Zero data detection signal input (L-ch) (Connected to Vss)
23	DAC_ZDETR	I	Zero data detection signal input (R-ch) (Connected to Vss)
24	NC	—	Not used. (Open)
25	RXD	I	UART RXD data input (MCBUS/Flash data input)
26	TXD	O	UART TXD data output (MCBUS/Flash data output)
27	DEC_SSTBY	O	SRAM STANDBY mode control signal output
28, 29	NC	—	Not used. (Open)
30	DEC_INT	I	Request signal input
31, 32	NC	—	Not used. (Open)
33	AVCC	—	Power supply pin (+3.3 V) for A/D converter
34	AVRH	—	External reference voltage for A/D converter
35	AVSS	—	Ground
36	NC	—	Not used. (Open)
37	DEC_XMUTE	O	Mute signal output L: mute
38, 39	NC	—	Not used. (Open)
40	VSS	—	Ground
41	NC	—	Not used. (Open)
42	MEC_LIMIT	I	Sled limit in detection switch signal input
43	MEC_LOAD	O	Loading motor signal output (Load direction)
44	MEC_EJECT	O	Loading motor signal output (Eject direction)
45	MEC_INSW	I	Pack-in detection signal input
46	MEC_DSW	I	Chucking end detection switch signal input
47, 48	MD0, MD1	I	CPU operation mode designation signal input (Connected to Vcc.)
49	MD2	I	CPU operation mode designation signal input (Connected to Vss.)
50	$\overline{\text{BUS\_ON}}$	I	Bus on signal input L: bus on
51	BU_IN	I	Backup on/off signal input H: backup on, L: backup off
52	NC	I	Not used. (Open)
53	$\overline{\text{MEC\_SELFSW}}$	I	Disc insert detection switch signal input L: disc in interruption
54, 55	NC	—	Not used. (Open)
56	UNISI	I	Serial data input
57	UNISO	O	Serial data output
58	UNICKI	I	Serial clock input
59	LINEOFF	O	Line off signal output
60	A_ATT	O	Audio attenuation signal output H: ATT on

Pin No.	Pin Name	I/O	Pin Description
61	XFLASH&EJECT_OK	I	Front panel open signal input H: eject
62	OPEN_REQ	O	Front panel open/close request signal output Not used in this set.
63	MECON	O	Mechanism deck power supply control signal output
64	CDON	O	Servo power supply control signal output
65	XUART	I	Sony-Bus/MC-Bus change signal input H: Sony-Bus, L: MC-Bus
66	ZMUTE	O	Zero detection mute signal output
67	MECON_CHK	I	MECHA +6V power rising detection signal input
68	CDON_CHK	I	SERVO +3.3V power rising detection signal input
69 to 74	NC	—	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	Sub-clock OUTPUT Not used in this set. (Open)
78	X0A	—	Sub-clock INPUT Not used in this set. (Connect to Vss.)
79	VSS	—	Ground
80	X0	I	Main-clock INPUT (12 MHz)
81	X1	O	Main-clock OUTPUT (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XWD	I	Not used in this set. (Open)
84	XINIT3	I	Not used in this set. (Open)
85	NC	—	Not used. (Open)
86	XSJIG	I	Not used in this set. (Open)
87 to 89	XINIT0 to 2	I	Not used in this set. (Open)
90 to 96	NC	—	Not used. (Open)
97	XDES	I	Destination setting pin
98	XLINE	I	Not used in this set. (Open)
99, 100	NC	—	Not used. (Open)

• **IC501 MB90F488BPF-G-156E1 (SYSTEM CONTROL) (MAIN BOARD (2/2))**

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL2	I	Destination setting pin
2	AREASEL1	I	Destination setting pin
3	AREASEL0	I	Destination setting pin
4	611_SEL	I	611WA/611TA setting pin
5	BEEP	O	Beep signal output
6	NCO	O	Not used (Open)
7	$\overline{\text{NOSE\_SW}}$	I	Front panel detect signal input
8	DIAG	I	Power AMP status signal input
9	$\overline{\text{VOLATT}}$	O	Electronic volume attenuate control signal output
10	CYRIL_SEL	I	CYRIL/NON-CYRIL Setting pin
11	VSS	—	Ground
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Not used (Open)
14	WMA	I	WMA mode setting pin
15	LCD_SEL	I	Illumination voltage setting pin
16	NCO	O	Not used (Open)
17	FUNC_SEL	O	BUS AUDIO IN/TUNER select signal output
18	NCO	O	Not used (Open)
19	NCO	O	Not used (Open)
20	NCO	O	Not used (Open)
21	NCO	O	Not used (Open)
22	NCO	O	Not used (Open)
23	VCC5	—	Power supply pin (+3.3V)
24	EEP_SIO	I/O	EEPROM bus serial data input/output
25	EEP_CKO	O	EEPROM bus serial clock output
26	AMPSTB	O	Power AMP standby signal output
27	LCD_CE/FLS_SI	O	LCD driver chip enable output
28	LCD_SO/FLS_SO	O	LCD driver serial data output
29	LCD_CKO	O	LCD driver serial clock output
30	RDSON	O	RDS ON signal output
31	NCO	O	Not used (Open)
32	NCO	O	Not used (Open)
33	I2C_CKO	O	I2C bus serial clock output
34	I2C_SIO	I/O	I2C bus serial data input/output
35	DAVDD	—	A/D converter power supply pin (+3.3V)
36	AVRH	—	A/D converter reference voltage supply pin (+3.3V)
37	DAVSS	—	Ground
38	QUALITY	I	Not used (Pull down)
39	VSM	I	S-meter voltage detect signal input
40	KEYIN1	I	Key signal input
41	KEYIN0	I	Key signal input
42	VSS	—	Ground
43	RC_IN0	I	Rotary commander key signal input
44	SA_IN	I	Spectrum analyzer data input
45	SA_CKO	O	Spectrum analyzer clock output
46	DOOR_IND	O	Door indicator on/off signal output
47	RE-1	I	Rotary encoder (Volume) signal input
48	RE-0	I	Rotary encoder (Volume) signal input
49	MD0	I	Operation mode setting pin

Pin No.	Pin Name	I/O	Pin Description
50	MD1	I	Operation mode setting pin
51	MD2	I	Operation mode setting pin
52	KEYACK	I	Key acknowledgment detect signal input
53	TU_ATTIN	I	Not used (Pull up)
54	BUIN	I	Back-up power supply detect signal input
55	NCO	O	Not used (Open)
56	DAVN	I	Not used (Pull down)
57	NCO	O	Not used (Open)
58	UNISI	I	Bus control data input
59	UNISO	O	Bus control data output
60	UNISCK	O	Bus control clock output
61	NCO	O	Not used (Open)
62	NCO	O	Not used (Open)
63	NCO	O	Not used (Open)
64	SIRCS	I	Remote control (infrared rays) signal input
65	NCO	O	Not used (Open)
66	NCO	O	Not used (Open)
67	NCO	O	Not used (Open)
68	FLASH_W	I	Memory mode select setting pin
69	NCO	O	Not used (Open)
70	DOOR_SW	I	Front panel open/close detect signal input
71	$\overline{\text{RC\_IN1}}$	I	Rotary commander shift key signal input
72	$\overline{\text{ACC\_IN}}$	I	Accessory power supply detect signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detect signal input
74	TELATT	I	Telephone attenuate detect signal input
75	ILLUIN	I	Illumination on/off control signal input
76	$\overline{\text{XKEYON}}$	O	A/D converter power supply control signal output
77	RESET	I	CPU reset input
78	NCO	O	Not used (Open)
79	XIN	I	Sub clock input (32.768kHz)
80	XOUT	O	Sub clock output (32.768kHz)
81	VSS1	—	Ground
82	OSCIN	I	Main clock input (18.432MHz)
83	OSCOUT	O	Main clock output (18.432MHz)
84	VCC3	—	Power supply pin (+3.3V)
85	SATSEL	I	Demo display setting pin
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	Bus ON signal output
88	$\overline{\text{SYSRST}}$	O	System reset output
89	EJECT_OK_SW	O	CD eject OK signal output
90	NCO	O	Not used (Open)
91	NCO	O	Not used (Open)
92	NCO	O	Not used (Open)
93	Z-MUTE	I	CD zero cross mute detect signal input
94	NCO	O	Not used (Open)
95	DEMO SEL	I	Demo on/off setting pin at Power ON
96	NCO	O	Not used (Open)
97	NCO	O	Not used (Open)
98	CD_ON	I	CD servo power control request signal input
99	$\overline{\text{CDM\_ON}}$	I	CD deck power control request signal input
100	OPEN-MUTE	O	During the AUX source mode signal output

SECTION 4
EXPLODED VIEWS

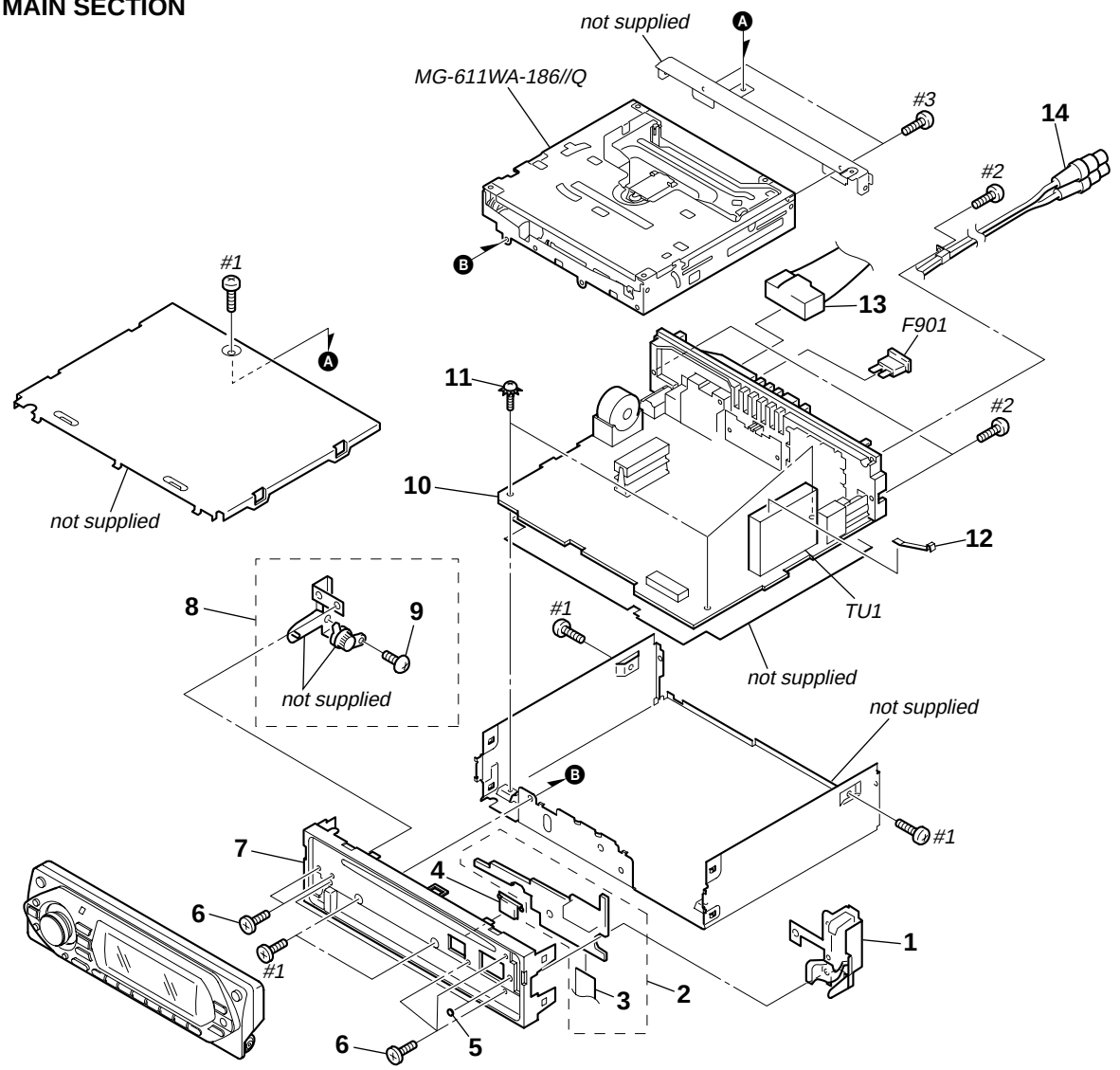
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  CND : Canadian model
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

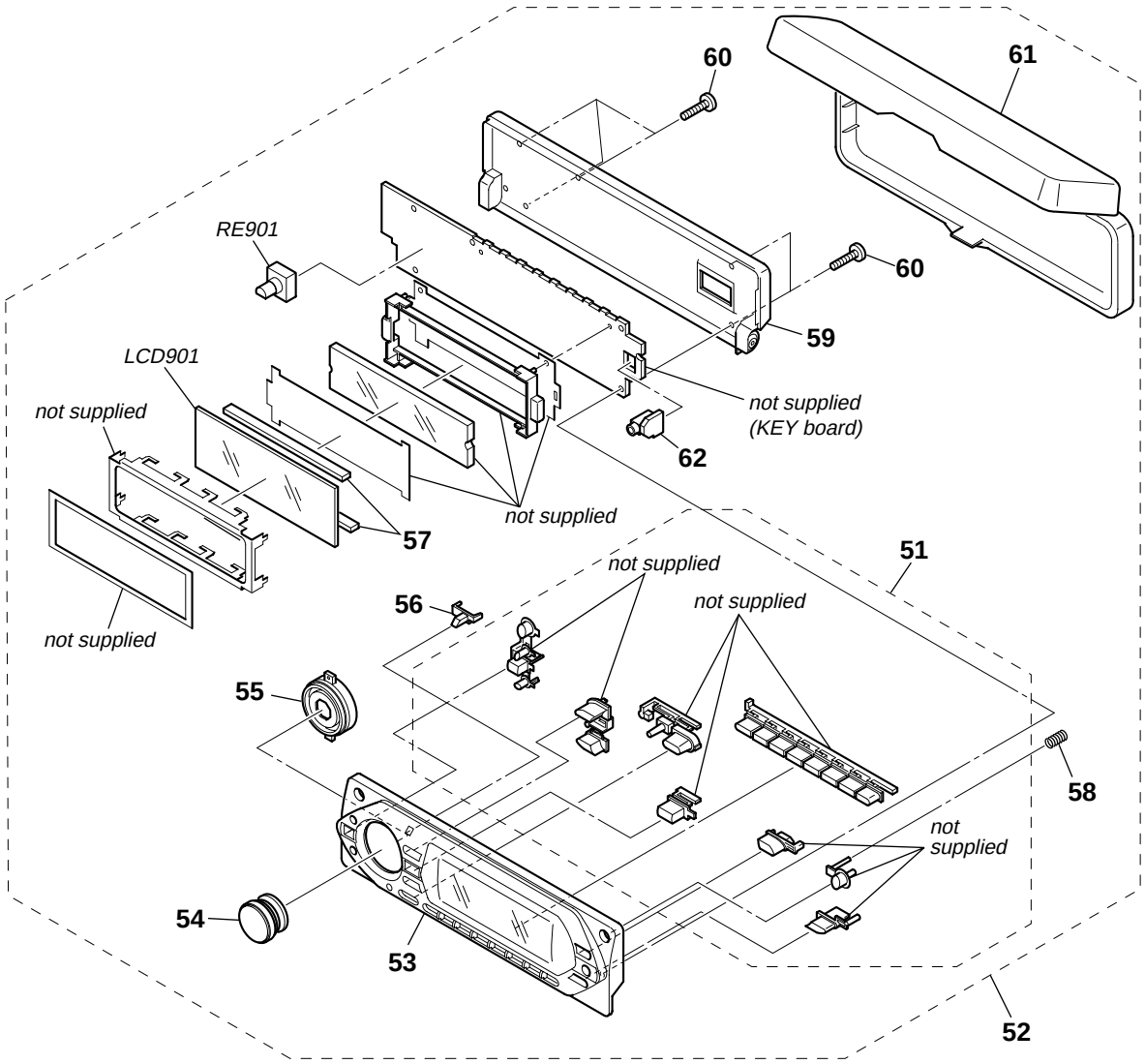
Les composants identifiés par une marque 0 sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-3384-259-1	LOCK ASSY	
2	A-1134-823-A	SUB BOARD, COMPLETE (GT40W)	
2	A-1138-373-A	SUB BOARD, COMPLETE (GT400/GT450/GT450S)	
3	1-831-308-11	CABLE, FLEXIBLE FLAT (17 CORE)	
4	3-246-441-01	BUTTON (EJECT)	
5	3-260-247-01	CUSHION (SUB PANEL)	
6	3-042-244-01	SCREW (T)	
7	X-2067-743-1	PANEL ASSY, SUB	
8	X-3384-203-1	GEAR ASSY	
9	3-713-786-51	SCREW +P 2X3	
10	A-1146-284-A	MAIN BOARD, COMPLETE (GT40W/GT400)	
10	A-1146-382-A	MAIN BOARD, COMPLETE (GT450/GT450S)	
11	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
12	2-021-848-01	SHEET (TU), GROUND	
13	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
14	1-790-355-54	CORD (WITH CONNECTOR) (RCA) (SUB OUT (MONO))	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-B	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#3	7-685-790-01	SCREW +PTT 2.6X4 (S)	

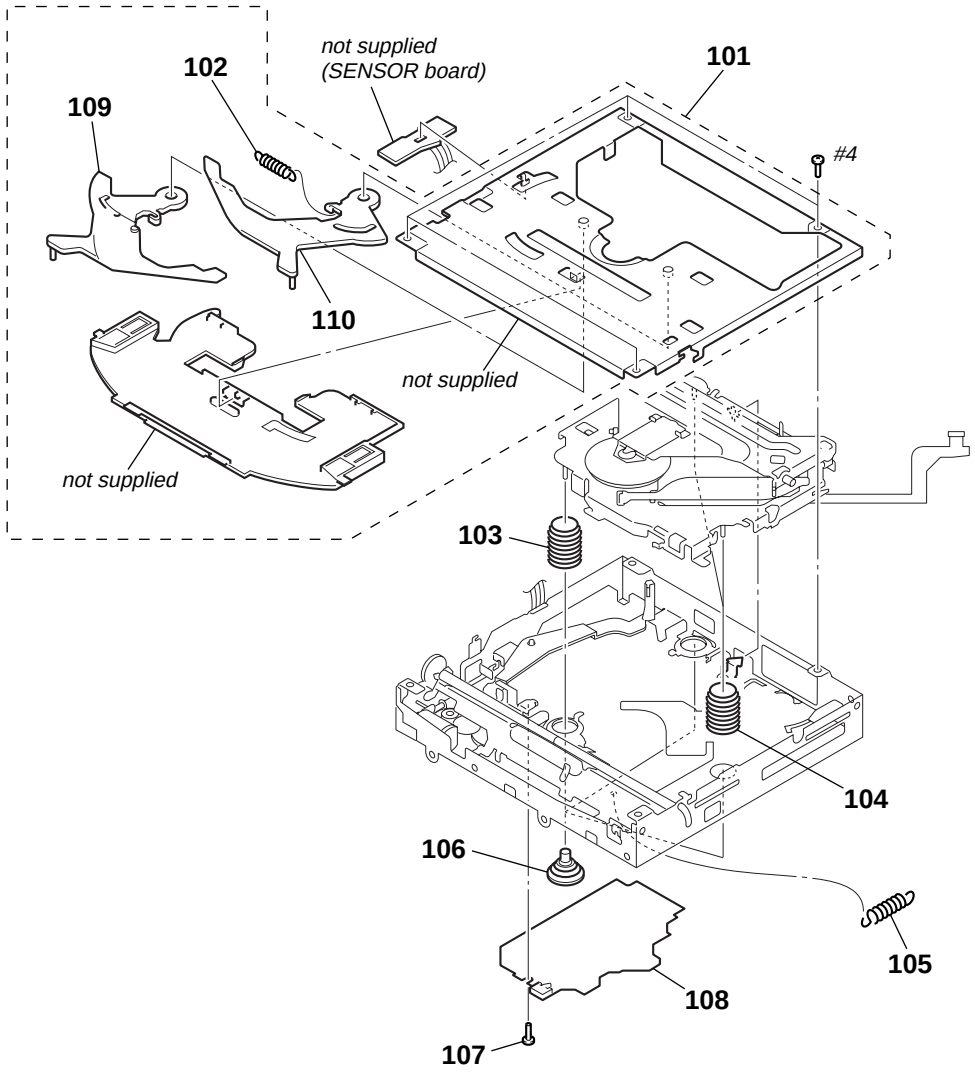
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2102-923-1	BUTTON ASSY (S) (GT40W/GT400/GT450)	
51	X-2102-924-1	BUTTON ASSY (S) (GT450S)	
52	A-1146-286-A	PANEL OVERALL ASSY, FRONT (GT40W)	
52	A-1146-374-A	PANEL OVERALL ASSY, FRONT (GT400:US)	
52	A-1146-385-A	PANEL OVERALL ASSY, FRONT (GT450S)	
52	A-1146-388-A	PANEL OVERALL ASSY, FRONT (GT450)	
52	X-1166-188-A	PANEL OVERALL ASSY, FRONT (GT400:CND)	
53	X-2102-943-1	PANEL (SV) ASSY, FRONT (GT40W)	
53	X-2102-944-1	PANEL (SV) ASSY, FRONT (GT400)	
53	X-2102-945-1	PANEL (SV) ASSY, FRONT (GT450S)	
53	X-2102-946-1	PANEL (SV) ASSY, FRONT (GT450)	
54	X-2103-060-1	KNOB (VOL) ASSY	

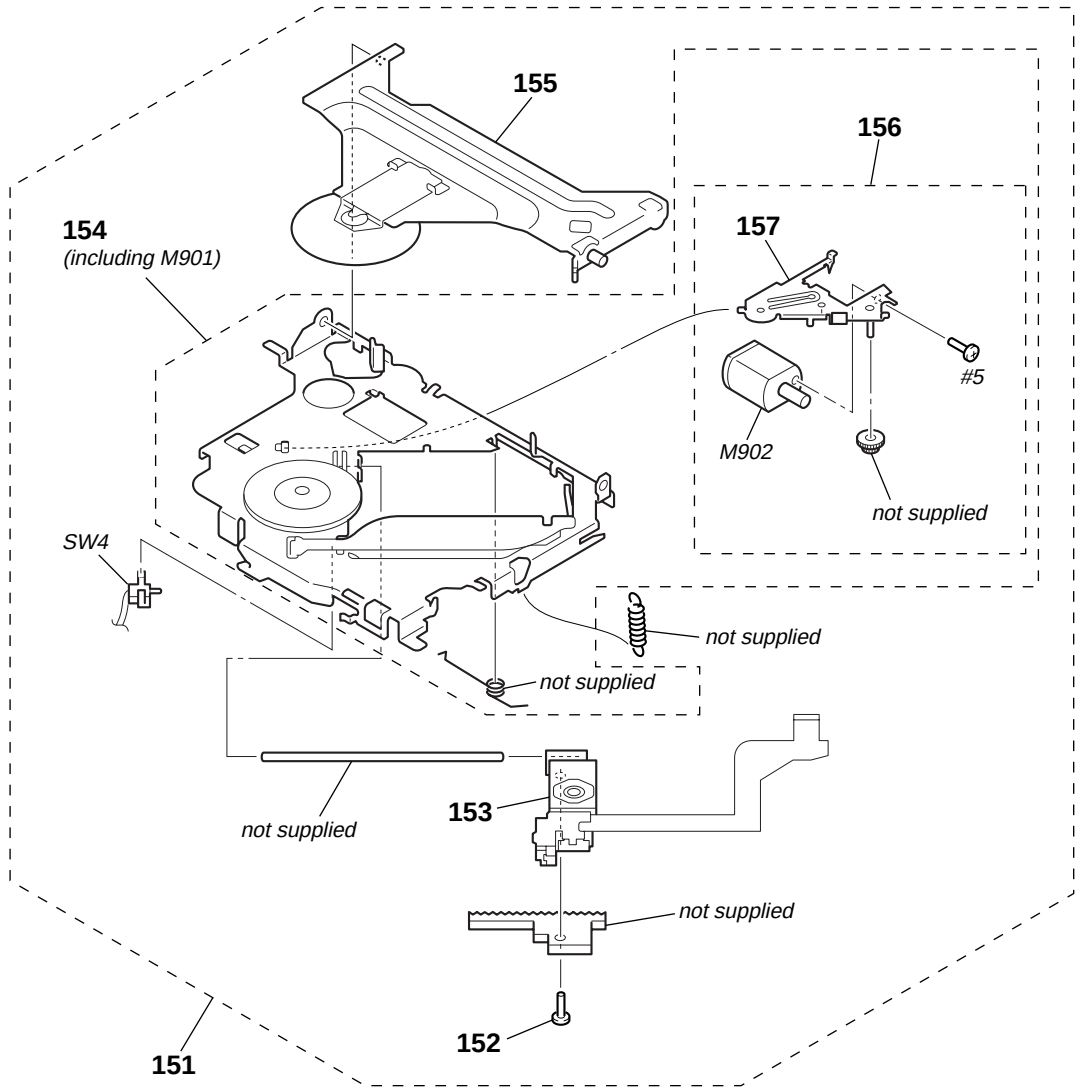
Ref. No.	Part No.	Description	Remark
55	2-630-985-01	GUIDE (VOL), LIGHT	
56	2-632-301-01	FILTER (IR) (GT40W/GT400/GT450)	
56	2-632-301-11	FILTER (IR) (GT450S)	
57	1-780-330-11	CONDUCTIVE BOARD, CONNECTION	
58	3-264-712-01	SPRING (OPEN)	
59	X-2067-745-1	PANEL ASSY, FRONT BACK	
60	3-250-543-21	SCREW (+B P-TITE M2)	
61	X-2055-358-1	CASE ASSY (for FRONT PANEL) (GT400:CND/GT450/GT450S)	
62	1-726-531-21	JACK BOARD (KEY COMBINED)	
LCD901	1-805-935-11	DISPLAY PANEL, LIQUID CRYSTAL	
RE901	1-479-481-11	ENCODER, ROTARY (PUSH SELECT (VOLUME))	

4-3. CD MECHANISM SECTION (1) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-A	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL (GREEN)	
104	3-257-892-01	SPRING (DAMPER), COIL (NATURAL)	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	
107	2-587-505-01	SCREW	
108	A-1132-412-A	SERVO BOARD, COMPLETE	
109	X-3384-088-2	LEVER (L) ASSY	
110	X-3384-089-2	LEVER (R) ASSY	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

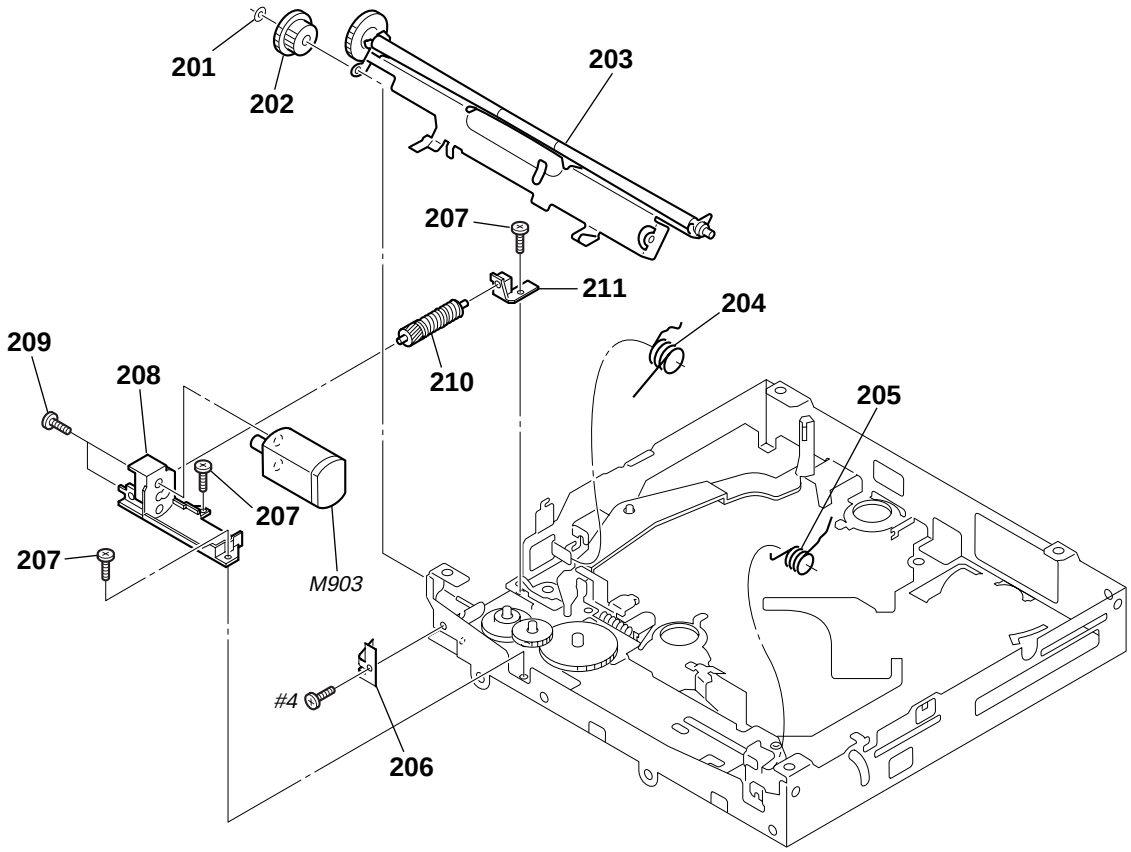
4-4. CD MECHANISM SECTION (2) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
151	A-1075-644-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	

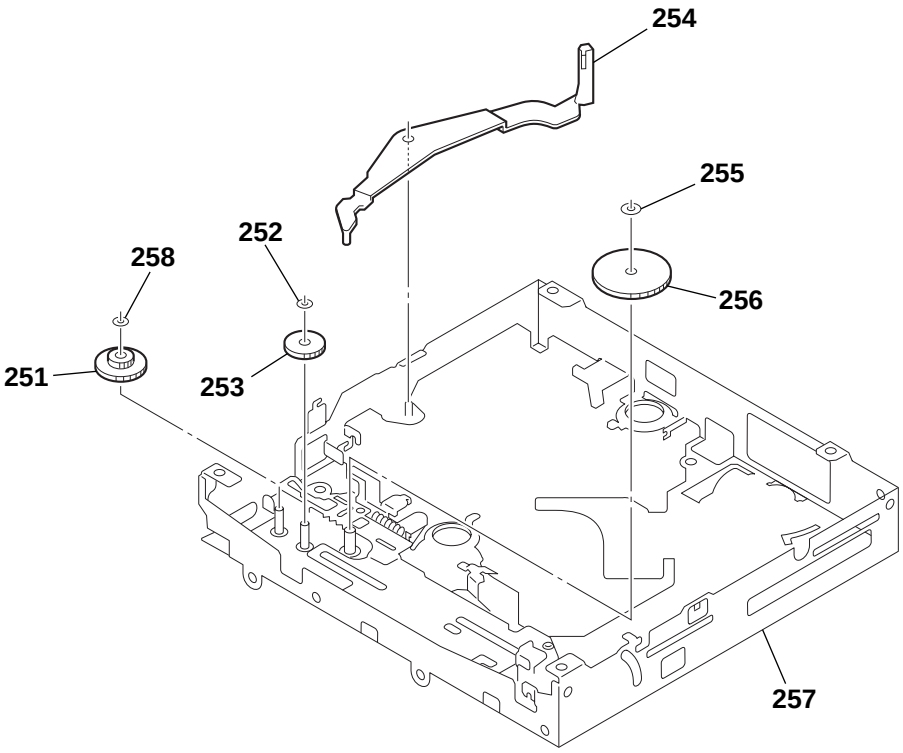
Ref. No.	Part No.	Description	Remark
156	A-3372-446-A	LEVER (SL) SUB ASSY	
157	X-3384-090-3	LEVER (SL) ASSY	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-01	GEAR (RA1)	
203	A-1075-641-B	ARM ASSY, ROLLER	
204	3-259-455-12	SPRING (RAL)	
205	3-253-713-11	SPRING (RAR)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	
208	2-186-696-02	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-636-A	GEAR (LE) ASSY	
211	2-186-697-01	BEARING (LEB-N)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-01	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-12	GEAR (LE1)	
254	3-253-755-31	LEVER (D)	
255	2-630-962-01	WASHER (SLIT)	
* 256	2-590-545-01	GEAR (LE2-M)	
257	A-1075-640-B	CHASSIS (M) BLOCK ASSY	
258	3-348-993-01	WASHER	

JACK KEY

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque 0 sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	1-726-531-21	JACK BOARD (KEY COMBINED)			
		**********			
		< FERRITE BEAD >			
FB902	1-216-864-11	SHORT CHIP	0		
FB903	1-414-595-11	INDUCTOR, FERRITE BEAD			
		< JACK >			
J901	1-819-732-11	JACK (DIA.3.5) (AUX)			
**********					
		KEY BOARD			
		**********			
	1-780-330-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C903	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C904	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C971	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C980	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
		< CONNECTOR >			
CN901	1-819-783-11	PLUG, CONNECTOR 16P			
		< DIODE >			
D901	6-500-886-01	DIODE RSA6.1ENTR			
D902	8-719-056-93	DIODE UDZ-TE-17-18B			
D903	8-719-069-56	DIODE UDZSTE-176.2B			
D904	8-719-056-82	DIODE UDZ-TE-17-6.2B			
D981	8-719-977-03	DIODE DTZ5.6B			
D984	8-719-081-97	DIODE MMDL914T1			
		< JUMPER RESISTOR >			
FB901	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC901	6-707-064-01	IC LC75876WH-US-E			
IC971	6-600-163-01	IC RS-770 (IR)			

Ref. No.	Part No.	Description	Remark
		< LIQUID CRYSTAL DISPLAY >	
LCD901	1-805-935-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< DIODE >	
LED902	6-500-450-01	LED CL-195SR-CD-T (SOURCE)	(GT400/GT450/GT450S)
LED902	6-500-510-01	LED CL-195PG-CD-T (SOURCE)	(GT40W)
LED911	6-500-450-01	LED CL-195SR-CD-T (DSO)	(GT400/GT450/GT450S)
LED911	6-500-510-01	LED CL-195PG-CD-T (DSO)	(GT40W)
LED912	6-500-450-01	LED CL-195SR-CD-T (EQ3)	(GT400/GT450/GT450S)
LED912	6-500-510-01	LED CL-195PG-CD-T (EQ3)	(GT40W)
LED913	6-500-450-01	LED CL-195SR-CD-T (PAUSE/6)	(GT400/GT450/GT450S)
LED913	6-500-510-01	LED CL-195PG-CD-T (PAUSE/6)	(GT40W)
LED914	6-500-450-01	LED CL-195SR-CD-T (BBE MP/5)	(GT400/GT450/GT450S)
LED914	6-500-510-01	LED CL-195PG-CD-T (BBE MP/5)	(GT40W)
LED915	6-500-450-01	LED CL-195SR-CD-T (SHUF/4)	(GT400/GT450/GT450S)
LED915	6-500-510-01	LED CL-195PG-CD-T (SHUF/4)	(GT40W)
LED916	6-500-450-01	LED CL-195SR-CD-T (REP/3)	(GT400/GT450/GT450S)
LED916	6-500-510-01	LED CL-195PG-CD-T (REP/3)	(GT40W)
LED917	6-500-450-01	LED CL-195SR-CD-T (2)	(GT400/GT450/GT450S)
LED917	6-500-510-01	LED CL-195PG-CD-T (2)	(GT40W)
LED918	6-500-450-01	LED CL-195SR-CD-T (1)	(GT400/GT450/GT450S)
LED918	6-500-510-01	LED CL-195PG-CD-T (1)	(GT40W)
LED919	6-500-450-01	LED CL-195SR-CD-T (SENS)	(GT400/GT450/GT450S)
LED919	6-500-510-01	LED CL-195PG-CD-T (SENS)	(GT40W)
LED920	6-500-450-01	LED CL-195SR-CD-T (MODE)	(GT400/GT450/GT450S)
LED920	6-500-510-01	LED CL-195PG-CD-T (MODE)	(GT40W)
LED921	6-500-450-01	LED CL-195SR-CD-T (VOLUME ILLUMINATE)	(GT400/GT450/GT450S)
LED921	6-500-510-01	LED CL-195PG-CD-T (VOLUME ILLUMINATE)	(GT40W)
LED922	6-500-450-01	LED CL-195SR-CD-T (VOLUME ILLUMINATE)	(GT400/GT450/GT450S)
LED922	6-500-510-01	LED CL-195PG-CD-T (VOLUME ILLUMINATE)	(GT40W)

KEY

Ref. No.	Part No.	Description	Remark
LED923	6-500-450-01	LED CL-195SR-CD-T (VOLUME ILLUMINATE)	(GT400/GT450/GT450S)
LED923	6-500-510-01	LED CL-195PG-CD-T (VOLUME ILLUMINATE)	(GT40W)
LED924	6-500-450-01	LED CL-195SR-CD-T (VOLUME ILLUMINATE)	(GT400/GT450/GT450S)
LED924	6-500-510-01	LED CL-195PG-CD-T (VOLUME ILLUMINATE)	(GT40W)
LED930	6-501-341-01	LED HL002-W11-SSC (LCD BACK LIGHT)	
LED931	6-501-341-01	LED HL002-W11-SSC (LCD BACK LIGHT)	
		< SWITCH >	
LSW901	1-786-800-11	SWITCH, TACTILE (WITH LED) (OFF)	(GT400/GT450/GT450S)
LSW901	1-786-801-11	SWITCH, TACTILE (WITH LED) (OFF) (GT40W)	
LSW903	1-786-805-11	SWITCH, TACTILE (WITH LED) (GP/ALBM +)	(GT400/GT450/GT450S)
LSW903	1-786-806-11	SWITCH, TACTILE (WITH LED) (GP/ALBM +)	(GT40W)
LSW904	1-786-805-11	SWITCH, TACTILE (WITH LED) (SEEK –/I◀◀/◀◀)	(GT400/GT450/GT450S)
LSW904	1-786-806-11	SWITCH, TACTILE (WITH LED) (SEEK –/I◀◀/◀◀) (GT40W)	
LSW905	1-786-805-11	SWITCH, TACTILE (WITH LED) (GP/ALBM –)	(GT400/GT450/GT450S)
LSW905	1-786-806-11	SWITCH, TACTILE (WITH LED) (GP/ALBM –)	(GT40W)
LSW907	1-786-805-11	SWITCH, TACTILE (WITH LED) (COLOR)	(GT400/GT450/GT450S)
LSW907	1-786-806-11	SWITCH, TACTILE (WITH LED) (COLOR)	(GT40W)
LSW908	1-786-805-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I/▶▶)	(GT400/GT450/GT450S)
LSW908	1-786-806-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I/▶▶) (GT40W)	
LSW909	1-786-805-11	SWITCH, TACTILE (WITH LED) (CAT/BTM)	(GT400)
LSW909	1-786-805-11	SWITCH, TACTILE (WITH LED) (BTM)	(GT450/GT450S)
LSW909	1-786-806-11	SWITCH, TACTILE (WITH LED) (CAT/BTM)	(GT40W)
LSW910	1-786-800-11	SWITCH, TACTILE (WITH LED) (DSPL)	(GT400/GT450/GT450S)
LSW910	1-786-801-11	SWITCH, TACTILE (WITH LED) (DSPL)	(GT40W)
		< TRANSISTOR >	
Q911	6-550-752-01	TRANSISTOR DTC614TKT146	
Q912	6-550-752-01	TRANSISTOR DTC614TKT146	
Q913	6-550-752-01	TRANSISTOR DTC614TKT146	
Q914	6-550-752-01	TRANSISTOR DTC614TKT146	
Q915	6-550-752-01	TRANSISTOR DTC614TKT146	
Q916	6-550-752-01	TRANSISTOR DTC614TKT146	
Q917	6-550-752-01	TRANSISTOR DTC614TKT146	
Q918	6-550-752-01	TRANSISTOR DTC614TKT146	
		< RESISTOR >	
R901	1-216-819-11	METAL CHIP 680 5%	1/10W
R902	1-216-819-11	METAL CHIP 680 5%	1/10W
R903	1-216-819-11	METAL CHIP 680 5%	1/10W
R904	1-216-821-11	METAL CHIP 1K 5%	1/10W
R905	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R906	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R907	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R908	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R909	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R910	1-218-867-11	METAL CHIP 6.8K 0.5%	1/10W
R912	1-216-819-11	METAL CHIP 680 5%	1/10W
R913	1-216-819-11	METAL CHIP 680 5%	1/10W
R914	1-216-819-11	METAL CHIP 680 5%	1/10W
R915	1-216-821-11	METAL CHIP 1K 5%	1/10W
R916	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R917	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R918	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R919	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R920	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R921	1-216-025-11	RES-CHIP 100 5%	1/10W
R922	1-216-025-11	RES-CHIP 100 5%	1/10W
R923	1-216-023-00	RES-CHIP 82 5%	1/10W (GT40W)
R923	1-216-031-00	RES-CHIP 180 5%	1/10W (GT400/GT450/GT450S)
R924	1-216-025-11	RES-CHIP 100 5%	1/10W
R925	1-216-025-11	RES-CHIP 100 5%	1/10W
R926	1-216-023-00	RES-CHIP 82 5%	1/10W (GT40W)
R926	1-216-031-00	RES-CHIP 180 5%	1/10W (GT400/GT450/GT450S)
R927	1-216-031-00	RES-CHIP 180 5%	1/10W
R928	1-216-031-00	RES-CHIP 180 5%	1/10W
R929	1-216-029-00	RES-CHIP 150 5%	1/10W (GT40W)
R929	1-216-037-00	RES-CHIP 330 5%	1/10W (GT400/GT450/GT450S)
R930	1-216-031-00	RES-CHIP 180 5%	1/10W
R931	1-216-031-00	RES-CHIP 180 5%	1/10W
R932	1-216-029-00	RES-CHIP 150 5%	1/10W (GT40W)
R932	1-216-037-00	RES-CHIP 330 5%	1/10W (GT400/GT450/GT450S)
R933	1-216-021-00	RES-CHIP 68 5%	1/10W (GT40W)
R933	1-216-025-11	RES-CHIP 100 5%	1/10W (GT400/GT450/GT450S)
R934	1-216-021-00	RES-CHIP 68 5%	1/10W (GT40W)
R934	1-216-027-00	RES-CHIP 120 5%	1/10W (GT400/GT450/GT450S)
R935	1-216-035-00	RES-CHIP 270 5%	1/10W (GT40W)
R935	1-216-041-00	RES-CHIP 470 5%	1/10W (GT400/GT450/GT450S)
R936	1-216-035-00	RES-CHIP 270 5%	1/10W (GT40W)
R936	1-216-041-00	RES-CHIP 470 5%	1/10W (GT400/GT450/GT450S)
R937	1-216-035-00	RES-CHIP 270 5%	1/10W (GT40W)
R937	1-216-041-00	RES-CHIP 470 5%	1/10W (GT400/GT450/GT450S)

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R938	1-216-029-00	RES-CHIP	150	5%	1/10W
R939	1-216-031-00	RES-CHIP	180	5%	1/10W
R940	1-216-031-00	RES-CHIP	180	5%	1/10W
R941	1-216-021-00	RES-CHIP	68	5%	1/10W (GT40W)
R941	1-216-025-11	RES-CHIP	100	5%	1/10W (GT400/GT450/GT450S)
R942	1-216-021-00	RES-CHIP	68	5%	1/10W (GT40W)
R942	1-216-027-00	RES-CHIP	120	5%	1/10W (GT400/GT450/GT450S)
R943	1-216-021-00	RES-CHIP	68	5%	1/10W (GT40W)
R943	1-216-025-11	RES-CHIP	100	5%	1/10W (GT400/GT450/GT450S)
R944	1-216-021-00	RES-CHIP	68	5%	1/10W (GT40W)
R944	1-216-027-00	RES-CHIP	120	5%	1/10W (GT400/GT450/GT450S)
R945	1-216-025-11	RES-CHIP	100	5%	1/10W
R946	1-216-025-11	RES-CHIP	100	5%	1/10W
R947	1-216-023-00	RES-CHIP	82	5%	1/10W (GT40W)
R947	1-216-031-00	RES-CHIP	180	5%	1/10W (GT400/GT450/GT450S)
R948	1-216-025-11	RES-CHIP	100	5%	1/10W
R949	1-216-025-11	RES-CHIP	100	5%	1/10W
R950	1-216-023-00	RES-CHIP	82	5%	1/10W (GT40W)
R950	1-216-031-00	RES-CHIP	180	5%	1/10W (GT400/GT450/GT450S)
R951	1-216-812-11	METAL CHIP	180	5%	1/10W
R952	1-216-812-11	METAL CHIP	180	5%	1/10W
R953	1-216-812-11	METAL CHIP	180	5%	1/10W
R954	1-216-812-11	METAL CHIP	180	5%	1/10W
R955	1-216-811-11	METAL CHIP	150	5%	1/10W
R956	1-216-811-11	METAL CHIP	150	5%	1/10W
R957	1-216-812-11	METAL CHIP	180	5%	1/10W
R958	1-216-811-11	METAL CHIP	150	5%	1/10W
R959	1-216-811-11	METAL CHIP	150	5%	1/10W
R960	1-216-812-11	METAL CHIP	180	5%	1/10W
R961	1-216-812-11	METAL CHIP	180	5%	1/10W
R962	1-216-812-11	METAL CHIP	180	5%	1/10W
R963	1-216-812-11	METAL CHIP	180	5%	1/10W
R964	1-216-811-11	METAL CHIP	150	5%	1/10W
R965	1-216-811-11	METAL CHIP	150	5%	1/10W
R966	1-216-812-11	METAL CHIP	180	5%	1/10W
R967	1-216-811-11	METAL CHIP	150	5%	1/10W
R968	1-216-811-11	METAL CHIP	150	5%	1/10W
R969	1-216-815-11	METAL CHIP	330	5%	1/10W
R970	1-216-815-11	METAL CHIP	330	5%	1/10W
R971	1-216-815-11	METAL CHIP	330	5%	1/10W
R972	1-216-815-11	METAL CHIP	330	5%	1/10W
R973	1-216-819-11	METAL CHIP	680	5%	1/10W
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-811-11	METAL CHIP	150	5%	1/10W
R979	1-216-821-11	METAL CHIP	1K	5%	1/10W
R981	1-216-808-11	METAL CHIP	82	5%	1/10W
R982	1-216-808-11	METAL CHIP	82	5%	1/10W
R983	1-216-808-11	METAL CHIP	82	5%	1/10W

Ref. No.	Part No.	Description			Remark
R984	1-216-864-11	SHORT CHIP	0		
R985	1-216-857-11	METAL CHIP	1M	5%	1/10W
R990	1-216-809-11	METAL CHIP	100	5%	1/10W
R991	1-216-817-11	METAL CHIP	470	5%	1/10W
R992	1-216-817-11	METAL CHIP	470	5%	1/10W
R993	1-216-817-11	METAL CHIP	470	5%	1/10W
		< ROTARY ENCODER >			
RE901	1-479-481-11	ENCODER, ROTARY (PUSH SELECT (VOLUME))			
		< SWITCH >			
S902	1-786-653-11	SWITCH, TACTILE (SOURCE)			
S911	1-786-653-11	SWITCH, TACTILE (DSO)			
S912	1-786-653-11	SWITCH, TACTILE (EQ3)			
S913	1-786-653-11	SWITCH, TACTILE (PAUSE/6)			
S914	1-786-653-11	SWITCH, TACTILE (BBE MP/5)			
S915	1-786-653-11	SWITCH, TACTILE (SHUF/4)			
S916	1-786-653-11	SWITCH, TACTILE (REP/3)			
S917	1-786-653-11	SWITCH, TACTILE (2)			
S918	1-786-653-11	SWITCH, TACTILE (1)			
S919	1-786-653-11	SWITCH, TACTILE (SENS)			
S920	1-786-653-11	SWITCH, TACTILE (MODE)			
**********					
	A-1146-284-A	MAIN BOARD, COMPLETE (GT40W/GT400)			
	A-1146-382-A	MAIN BOARD, COMPLETE (GT450/GT450S)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C2	1-126-947-11	ELECT	47uF	20%	35V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5	1-126-947-11	ELECT	47uF	20%	35V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C9	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C14	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C48	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C112	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C113	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C114	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C115	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C300	1-126-960-11	ELECT	1uF	20%	50V
C301	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C302	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C303	1-128-551-11	ELECT	22uF	20%	63V
C304	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C305	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C306	1-126-964-11	ELECT	10uF	20%	50V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C310	1-126-916-11	ELECT	1000uF	20%	6.3V
C311	1-126-947-11	ELECT	47uF	20%	35V

Ref. No.	Part No.	Description			Remark
C312	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C313	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C316	1-126-964-11	ELECT	10uF	20%	50V
C317	1-126-961-11	ELECT	2.2uF	20%	50V
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C319	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C320	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C321	1-126-960-11	ELECT	1uF	20%	50V
C323	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C324	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C326	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C327	1-216-295-11	SHORT CHIP	0		
C328	1-216-295-11	SHORT CHIP	0		
C329	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C363	1-126-960-11	ELECT	1uF	20%	50V
C364	1-126-960-11	ELECT	1uF	20%	50V
C365	1-126-960-11	ELECT	1uF	20%	50V
C366	1-126-960-11	ELECT	1uF	20%	50V
C367	1-126-960-11	ELECT	1uF	20%	50V
C401	1-104-665-11	ELECT	100uF	20%	25V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-126-934-11	ELECT	220uF	20%	16V
C405	1-128-551-11	ELECT	22uF	20%	63V
C410	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C411	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C421	1-126-791-11	ELECT	10uF	20%	35V
C422	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C431	1-126-791-11	ELECT	10uF	20%	35V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-791-11	ELECT	10uF	20%	35V
C442	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C461	1-126-791-11	ELECT	10uF	20%	35V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-791-11	ELECT	10uF	20%	35V
C472	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C480	1-136-154-00	FILM	0.012uF	5%	50V
C481	1-136-154-00	FILM	0.012uF	5%	50V
C482	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C483	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C484	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C485	1-104-665-11	ELECT	100uF	20%	25V
C486	1-126-964-11	ELECT	10uF	20%	50V
C491	1-126-947-11	ELECT	47uF	20%	35V
C501	1-126-924-11	ELECT	330uF	20%	10V
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-104-665-11	ELECT	100uF	20%	25V
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-216-845-11	METAL CHIP	100K	5%	1/10W
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C516	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C519	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C523	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C600	1-126-935-11	ELECT	470uF	20%	16V
C601	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C701	1-131-868-81	ELECT	3300uF	20%	16V
C702	1-126-960-11	ELECT	1uF	20%	50V
C703	1-126-963-11	ELECT	4.7uF	20%	50V
C704	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C705	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C901	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C902	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C998	1-216-864-11	SHORT CHIP	0		
C999	1-216-864-11	SHORT CHIP	0		

< CONNECTOR >

CN300	1-774-701-21	PIN, CONNECTOR 16P	
CN350	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P	
* CN410	1-564-506-11	PLUG, CONNECTOR 3P	
CN701	1-568-860-11	SOCKET, CONNECTOR 17P	
CNJ400	1-580-907-41	PLUG, CONNECTOR (BUS CONTROL IN)	

< DIODE >

D2	8-719-036-94	DIODE	RD5.6SB-T1
D101	8-719-056-93	DIODE	UDZ-TE-17-18B
D103	8-719-056-93	DIODE	UDZ-TE-17-18B
D106	6-500-886-01	DIODE	RSA6.1ENTR
D107	6-500-886-01	DIODE	RSA6.1ENTR
D108	8-719-056-83	DIODE	UDZ-TE-17-6.8B
D114	8-719-056-82	DIODE	UDZ-TE-17-6.2B
D115	8-719-056-82	DIODE	UDZ-TE-17-6.2B
D301	6-501-362-01	DIODE	1A4-TA26
D302	6-501-362-01	DIODE	1A4-TA26
D303	6-501-362-01	DIODE	1A4-TA26
D304	6-501-362-01	DIODE	1A4-TA26
D305	6-501-362-01	DIODE	1A4-TA26
D306	6-501-362-01	DIODE	1A4-TA26
D307	6-501-362-01	DIODE	1A4-TA26
D308	6-501-362-01	DIODE	1A4-TA26
D309	6-501-362-01	DIODE	1A4-TA26
D310	6-501-362-01	DIODE	1A4-TA26
D311	6-501-362-01	DIODE	1A4-TA26
D312	6-501-362-01	DIODE	1A4-TA26
D365	8-719-978-33	DIODE	DTZ-TT11-6.8B
D366	8-719-056-83	DIODE	UDZ-TE-17-6.8B
D367	8-719-978-33	DIODE	DTZ-TT11-6.8B
D400	6-501-013-01	DIODE	BAT54ALT1G
D491	8-719-081-97	DIODE	MMDL914T1

MAIN

Ref. No.	Part No.	Description	Remark
D493	6-501-051-01	DIODE BAT54CLT1G	
D494	6-501-013-01	DIODE BAT54ALT1G	
D501	8-719-050-37	DIODE M1MA152WA-T1	
D502	6-500-137-01	DIODE BAT54HT1	
D511	6-501-051-01	DIODE BAT54CLT1G	
D602	8-719-056-93	DIODE UDZ-TE-17-18B	
D603	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D604	8-719-056-93	DIODE UDZ-TE-17-18B	
D605	8-719-056-93	DIODE UDZ-TE-17-18B	
D606	8-719-072-70	DIODE MA2ZD14001S0	
D607	8-719-049-38	DIODE 1N5404TU	
D701	8-719-056-93	DIODE UDZ-TE-17-18B	
D702	8-719-056-93	DIODE UDZ-TE-17-18B	
D703	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D704	8-719-056-93	DIODE UDZ-TE-17-18B	
D705	8-719-081-97	DIODE MMDL914T1	
D903	8-719-056-93	DIODE UDZ-TE-17-18B	
		< FERRITE BEAD >	
FB401	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB402	1-216-864-11	SHORT CHIP 0	
FB403	1-216-864-11	SHORT CHIP 0	
FB404	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB405	1-216-864-11	SHORT CHIP 0	
FB406	1-216-864-11	SHORT CHIP 0	
FB407	1-216-295-11	SHORT CHIP 0	
FB408	1-469-876-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC300	6-705-359-02	IC TDA8588AJ/N2/R1	
IC301	8-759-391-88	IC MC14066BDTR2	
IC401	6-707-303-01	IC TDA7419TR	
IC501	6-806-025-01	IC MB90488BPF-G-156E1	
IC502	6-704-529-01	IC XC6206P332PR	
IC601	6-703-884-01	IC BA8271F-E2	
IC602	8-759-659-13	IC PST3428UL	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J370	1-566-822-41	JACK (REMOTE IN)	
J451	1-774-700-41	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT REAR/FRONT)	
		< JUMPER RESISTOR >	
JC1	1-216-295-11	SHORT CHIP 0	
JC3	1-216-864-11	SHORT CHIP 0	
JC5	1-216-296-11	SHORT CHIP 0	
JC32	1-216-864-11	SHORT CHIP 0	
JC300	1-216-296-11	SHORT CHIP 0	
JC301	1-216-296-11	SHORT CHIP 0	
JC302	1-216-296-11	SHORT CHIP 0	
JC304	1-216-864-11	SHORT CHIP 0	
JC305	1-216-296-11	SHORT CHIP 0	
JC306	1-216-296-11	SHORT CHIP 0	
JC307	1-216-864-11	SHORT CHIP 0	
JC308	1-216-864-11	SHORT CHIP 0	
JC350	1-216-296-11	SHORT CHIP 0	
JC420	1-216-864-11	SHORT CHIP 0	

Ref. No.	Part No.	Description			Remark
JC430	1-216-296-11	SHORT CHIP	0		
JC490	1-216-296-11	SHORT CHIP	0		
JC491	1-216-296-11	SHORT CHIP	0		
JC501	1-216-296-11	SHORT CHIP	0		
JC503	1-216-296-11	SHORT CHIP	0		
JC504	1-216-864-11	SHORT CHIP	0		
JC505	1-216-864-11	SHORT CHIP	0		
JC508	1-216-864-11	SHORT CHIP	0		
JC509	1-216-296-11	SHORT CHIP	0		
JC510	1-216-864-11	SHORT CHIP	0		
JC511	1-216-296-11	SHORT CHIP	0		
JC512	1-216-296-11	SHORT CHIP	0		
JC513	1-216-296-11	SHORT CHIP	0		
JC514	1-216-296-11	SHORT CHIP	0		
JC515	1-216-821-11	METAL CHIP	1K	5%	1/10W
JC516	1-216-295-11	SHORT CHIP	0		
JC600	1-216-864-11	SHORT CHIP	0		
JC601	1-216-864-11	SHORT CHIP	0		
JC999	1-216-864-11	SHORT CHIP	0		
		< COIL >			
JW21	1-410-509-11	INDUCTOR	10uH		
L1	1-216-025-11	RES-CHIP	100	5%	1/10W
L4	1-469-844-11	INDUCTOR	2.2uH		
L300	1-456-617-11	COIL, CHOKE			
L301	1-216-864-11	SHORT CHIP	0		
L302	1-216-864-11	SHORT CHIP	0		
L303	1-216-864-11	SHORT CHIP	0		
L500	1-469-844-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
Q3	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q300	8-729-421-22	TRANSISTOR	UN2211		
Q301	8-729-424-08	TRANSISTOR	UN2111		
Q420	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q430	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q440	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q460	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q470	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q491	8-729-424-08	TRANSISTOR	UN2111		
Q492	8-729-421-19	TRANSISTOR	UN2213		
Q501	8-729-424-08	TRANSISTOR	UN2111		
Q589	8-729-421-22	TRANSISTOR	UN2211		
Q590	8-729-424-08	TRANSISTOR	UN2111		
Q600	8-729-047-76	TRANSISTOR	FMC2A-T148		
Q601	8-729-424-08	TRANSISTOR	UN2111		
Q605	8-729-421-22	TRANSISTOR	UN2211		
Q701	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q702	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q703	8-729-010-25	TRANSISTOR	MSD601-RT1		
		< RESISTOR >			
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R6	1-414-595-11	INDUCTOR, FERRITE BEAD			
R7	1-414-595-11	INDUCTOR, FERRITE BEAD			
R10	1-216-821-11	METAL CHIP	1K	5%	1/10W
R12	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R13	1-216-809-11	METAL CHIP	100	5%	1/10W
R58	1-216-864-11	SHORT CHIP	0		
R301	1-216-809-11	METAL CHIP	100	5%	1/10W
R302	1-216-841-11	METAL CHIP	47K	5%	1/10W
R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R351	1-216-833-11	METAL CHIP	10K	5%	1/10W
R355	1-216-833-11	METAL CHIP	10K	5%	1/10W
R356	1-216-833-11	METAL CHIP	10K	5%	1/10W
R357	1-216-821-11	METAL CHIP	1K	5%	1/10W
R358	1-216-821-11	METAL CHIP	1K	5%	1/10W
R359	1-216-296-11	SHORT CHIP	0		
R361	1-216-821-11	METAL CHIP	1K	5%	1/10W
R370	1-216-809-11	METAL CHIP	100	5%	1/10W
R371	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-864-11	SHORT CHIP	0		
R402	1-216-864-11	SHORT CHIP	0		
R411	1-216-841-11	METAL CHIP	47K	5%	1/10W
R416	1-216-821-11	METAL CHIP	1K	5%	1/10W
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R418	1-216-821-11	METAL CHIP	1K	5%	1/10W
R419	1-216-833-11	METAL CHIP	10K	5%	1/10W
R420	1-216-809-11	METAL CHIP	100	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R422	1-216-841-11	METAL CHIP	47K	5%	1/10W
R423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
R430	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R463	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R473	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
R480	1-216-833-11	METAL CHIP	10K	5%	1/10W
R481	1-216-833-11	METAL CHIP	10K	5%	1/10W
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R483	1-216-833-11	METAL CHIP	10K	5%	1/10W
R484	1-249-417-11	CARBON	1K	5%	1/4W
R491	1-216-805-11	METAL CHIP	47	5%	1/10W
R494	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R500	1-216-817-11	METAL CHIP	470	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT40W/GT400)
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT450/GT450S)
R506	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT40W/GT400)
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT450/GT450S)
R508	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT450/GT450S)
R509	1-216-845-11	METAL CHIP	100K	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-845-11	METAL CHIP	100K	5%	1/10W
R513	1-216-821-11	METAL CHIP	1K	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R518	1-216-845-11	METAL CHIP	100K	5%	1/10W
R519	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R520	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R521	1-216-821-11	METAL CHIP	1K	5%	1/10W
R522	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R525	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-841-11	METAL CHIP	47K	5%	1/10W
R527	1-216-841-11	METAL CHIP	47K	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-864-11	SHORT CHIP	0		
R536	1-216-811-11	METAL CHIP	150	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R538	1-216-821-11	METAL CHIP	1K	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-841-11	METAL CHIP	47K	5%	1/10W
R543	1-216-845-11	METAL CHIP	100K	5%	1/10W
R544	1-216-845-11	METAL CHIP	100K	5%	1/10W
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W
R547	1-216-809-11	METAL CHIP	100	5%	1/10W
R548	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R549	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R550	1-216-821-11	METAL CHIP	1K	5%	1/10W
R552	1-216-845-11	METAL CHIP	100K	5%	1/10W
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-249-417-11	CARBON	1K	5%	1/4W
R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-809-11	METAL CHIP	100	5%	1/10W
R560	1-216-845-11	METAL CHIP	100K	5%	1/10W
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R596	1-249-417-11	CARBON	1K	5%	1/4W
R597	1-249-417-11	CARBON	1K	5%	1/4W
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R602	1-216-833-11	METAL CHIP	10K	5%	1/10W
R603	1-216-821-11	METAL CHIP	1K	5%	1/10W
R604	1-216-835-11	METAL CHIP	15K	5%	1/10W
R606	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R610	1-216-809-11	METAL CHIP	100	5%	1/10W

MAIN **SENSOR** **SERVO**

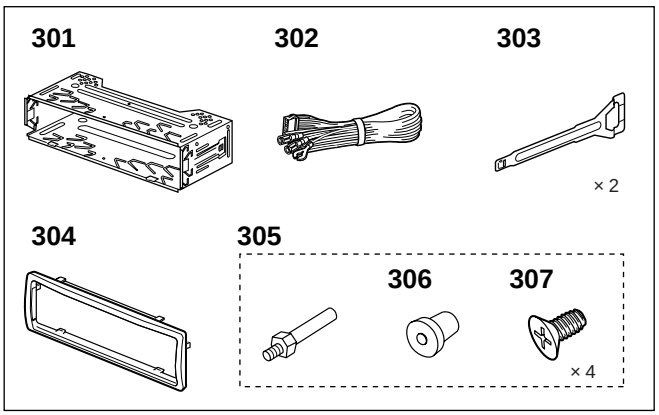
Ref. No.	Part No.	Description			Remark
R611	1-216-809-11	METAL CHIP	100	5%	1/10W
R700	1-249-425-11	CARBON	4.7K	5%	1/4W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-841-11	METAL CHIP	47K	5%	1/10W
R703	1-216-833-11	METAL CHIP	10K	5%	1/10W
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-841-11	METAL CHIP	47K	5%	1/10W
R707	1-216-841-11	METAL CHIP	47K	5%	1/10W
R708	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R709	1-216-821-11	METAL CHIP	1K	5%	1/10W
R710	1-249-425-11	CARBON	4.7K	5%	1/4W
R711	1-216-845-11	METAL CHIP	100K	5%	1/10W
R712	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S102	1-786-458-11	SWITCH, PUSH (1 KEY) (FRONT PANEL DETECT)			
S103	1-692-431-21	SWITCH, TACTILE (RESET)			
S501	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (GT450/GT450S)			
		< THERMISTOR (POSITIVE) >			
TH400	1-803-350-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	A-3220-961-B	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X500	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X501	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1132-412-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C7	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C10	1-126-208-21	ELECT CHIP	47uF	20%	4V
C11	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C12	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C13	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C14	1-104-609-11	ELECT CHIP	100uF	20%	4V
C15	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C17	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C22	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C24	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C25	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C26	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C29	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C30	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C31	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C32	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C33	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C39	1-126-208-21	ELECT CHIP	47uF	20%	4V
C40	1-126-395-11	ELECT CHIP	22uF	20%	16V
C41	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C44	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C46	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C47	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C48	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C50	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C54	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C55	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C56	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C58	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C60	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C62	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C66	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C68	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C69	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C70	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C71	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C72	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C132	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C133	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CN1	1-691-380-61	CONNECTOR, FFC/FPC (ZIF) 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-708-729-01	IC TC94A70FG-002			
IC3	6-806-019-02	IC MB90486BPFV-G-177E1			
IC6	6-708-728-01	IC BH15LB1WG			
		< TRANSISTOR >			
Q2	6-551-120-01	TRANSISTOR 2SA2119K			

Ref. No.	Part No.	Description			Remark
Q3	8-729-928-90	TRANSISTOR DTC114EE			
Q21	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R1	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-969-11	RES-CHIP	22K	5%	1/16W
R7	1-218-990-81	SHORT CHIP	0		
R8	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9	1-218-965-11	RES-CHIP	10K	5%	1/16W
R10	1-218-990-81	SHORT CHIP	0		
R11	1-218-941-81	RES-CHIP	100	5%	1/16W
R12	1-218-969-11	RES-CHIP	22K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R14	1-218-929-11	RES-CHIP	10	5%	1/16W
R15	1-218-929-11	RES-CHIP	10	5%	1/16W
R16	1-218-953-11	RES-CHIP	1K	5%	1/16W
R17	1-218-990-81	SHORT CHIP	0		
R18	1-218-941-81	RES-CHIP	100	5%	1/16W
R19	1-218-935-11	RES-CHIP	33	5%	1/16W
R20	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R21	1-218-941-81	RES-CHIP	100	5%	1/16W
R22	1-218-977-11	RES-CHIP	100K	5%	1/16W
R23	1-218-977-11	RES-CHIP	100K	5%	1/16W
R24	1-218-977-11	RES-CHIP	100K	5%	1/16W
R25	1-218-977-11	RES-CHIP	100K	5%	1/16W
R26	1-218-977-11	RES-CHIP	100K	5%	1/16W
R27	1-218-977-11	RES-CHIP	100K	5%	1/16W
R28	1-218-945-11	RES-CHIP	220	5%	1/16W
R29	1-218-989-11	RES-CHIP	1M	5%	1/16W
R30	1-218-989-11	RES-CHIP	1M	5%	1/16W
R31	1-218-989-11	RES-CHIP	1M	5%	1/16W
R32	1-218-947-11	RES-CHIP	330	5%	1/16W
R33	1-218-990-81	SHORT CHIP	0		
R34	1-216-864-11	SHORT CHIP	0		
R35	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R36	1-218-947-11	RES-CHIP	330	5%	1/16W
R37	1-218-947-11	RES-CHIP	330	5%	1/16W
R38	1-218-941-81	RES-CHIP	100	5%	1/16W
R39	1-218-941-81	RES-CHIP	100	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-941-81	RES-CHIP	100	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R44	1-218-977-11	RES-CHIP	100K	5%	1/16W
R52	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R53	1-218-979-11	RES-CHIP	150K	5%	1/16W
R54	1-218-990-81	SHORT CHIP	0		
R55	1-218-973-11	RES-CHIP	47K	5%	1/16W
R57	1-218-967-11	RES-CHIP	15K	5%	1/16W
R58	1-218-969-11	RES-CHIP	22K	5%	1/16W
R60	1-218-941-81	RES-CHIP	100	5%	1/16W
R61	1-218-941-81	RES-CHIP	100	5%	1/16W
R62	1-218-941-81	RES-CHIP	100	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-965-11	RES-CHIP	10K	5%	1/16W
R71	1-218-973-11	RES-CHIP	47K	5%	1/16W
R72	1-218-973-11	RES-CHIP	47K	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R75	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-973-11	RES-CHIP	47K	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R79	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-941-81	RES-CHIP	100	5%	1/16W
R82	1-218-941-81	RES-CHIP	100	5%	1/16W
R83	1-218-977-11	RES-CHIP	100K	5%	1/16W
R84	1-218-941-81	RES-CHIP	100	5%	1/16W
R85	1-218-977-11	RES-CHIP	100K	5%	1/16W
R86	1-218-941-81	RES-CHIP	100	5%	1/16W
R87	1-218-977-11	RES-CHIP	100K	5%	1/16W
R96	1-218-941-81	RES-CHIP	100	5%	1/16W
R97	1-220-200-81	RES-CHIP	30K	5%	1/16W
R98	1-218-971-11	RES-CHIP	33K	5%	1/16W
R132	1-218-969-11	RES-CHIP	22K	5%	1/16W
R133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R141	1-216-864-11	SHORT CHIP	0		
R144	1-216-864-11	SHORT CHIP	0		
R147	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-813-678-11	OSCILLATOR, CERAMIC (CHIP TYPE) (12MHz)			
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
	A-1134-823-A	SUB BOARD, COMPLETE (GT40W)			
	A-1138-373-A	SUB BOARD, COMPLETE (GT400/GT450/GT450S)			
		**********			
	1-831-308-11	CABLE, FLEXIBLE FLAT (17 CORE) (CN802)			
		< CONNECTOR >			
CN801	1-819-782-11	SOCKET, CONNECTOR 16P			
		< DIODE >			
LED801	6-500-510-01	LED CL-195PG-CD-T (DISC IN) (GT40W)			
LED801	8-719-053-09	LED SML-310VTT86 (DISC IN) (GT400/GT450/GT450S)			
LED802	6-500-510-01	LED CL-195PG-CD-T (⏏) (GT40W)			
LED802	8-719-053-09	LED SML-310VTT86 (⏏) (GT400/GT450/GT450S)			
		< SWITCH >			
S801	1-786-653-11	SWITCH, TACTILE (⏏)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
13	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
14	1-790-355-54	CORD (WITH CONNECTOR) (RCA) (SUB OUT (MONO))	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		**********	
	1-479-077-12	REMOTE COMMANDER (RM-X151)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151)	
	2-653-154-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH, SIMPLIFIED CHINESE) (GT450/GT450S)	
	2-653-154-21	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (GT400)	
	2-653-154-31	MANUAL, INSTRUCTION (ENGLISH,SPANISH) (GT40W)	
	2-653-156-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SIMPLIFIED CHINESE) (GT450/GT450S)	
	2-653-156-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (GT400)	
	2-653-156-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH) (GT40W)	
	X-2055-358-1	CASE ASSY (for FRONT PANEL) (GT400:CND/GT450/GT450S)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
303	3-246-471-01	KEY (FRAME)	
304	2-638-099-01	COLLAR	
305	X-3381-154-1	SCREW ASSY (BS4), FITTING (GT450/GT450S)	
306	3-349-410-11	BUSHING (GT450/GT450S)	
307	3-934-325-01	SCREW, +K (5X8) TAPPING	



MEMO

REVISION HISTORY

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Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005.10	New